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## ESSAYS AND CASES.

ART. I.—*Report of a case of Gunshot Wound of the Lungs and Heart, with the appearances after death .By* LEONARD RANDAL, M. D. *of Tennessee.*

On the 5th of April 1828, a negro boy aged 15 years, was by accident, shot in the breast, with a common fowling piece loaded with shot. He stood six feet from the muzzle of the gun, and received the whole charge. All the shot, with the exception of two or three, entered near each other, within the area of a dollar, on the left side of the sternum, beginning about an inch and a half below its lower extremity. He fell to the ground immediately, on receiving the wound.

The accident happened at one o'clock. Dr. Hudspeth and myself were immediately sent for. I was gone to the country, but the Doctor repaired to the house without delay. His pulse was scarcely perceptible, and he breathed with great difficulty. The Doctor opened a vein, and took three or four ounces of blood, and gave him thirty-five drops of laudanum upon which his pulse rose a little; he also applied a poultice of bread and milk to the wound, to encourage the hæmorrhage which was not profuse. When I arrived two hours after the accident, I found his pulse very weak and irregular. We gave him stimulants, occasionally, which rendered it stronger and more steady; he expectorated blood freely. We gave

him a dose of ol. ricini which his stomach rejected immediately; and while vomiting he discharged a large quantity of wind, suggesting to us that the external air found its way into the œsophagus, from that tube having been wounded; a supposition that was strengthened by his frequent subsequent eructations. We also gave him a dose of sulphate of magnesia, which like the oil was thrown up.

April 6. In the morning administered an opiate, and half an hour afterwards, ten grains of calomel with ten of rhubarb. In the evening we gave him half an ounce of oleum ricini, and about midnight an enema.

On the morning of the 7th, we administered an infusion of senna, about twelve another enema, and at three repeated the infusion. He had now become extremely restless, his pulse was very weak and intermittent, syncope came on, and he had the appearance of being in the jaws of death. We gave him camphorated spirit, he recovered, and his pulse became fuller, a degree of fever supervened, for which he took the sp. nitr. dulc. and it soon abated. About six he had an alvine discharge, the first he had experienced except what was brought away by the enemata. He immediately got much better, felt an inclination to eat, and took a cup of soup. In the course of the night he had two or three discharges more, and rested better than he had previously done, though he generally had a great disposition to sleep.

Morning of the 8th. Said he felt much better. About two o'clock in the afternoon, a fever rose and he became restless, complaining of great pain in the breast, and about the heart. There was some tension and swelling of the right hypochondrium and his feet and legs also swelled; he had two or three bloody alvine discharges, and was very restless through the night, although we kept him on a strict antiphlogistic regimen, and gave him an anodyne.

Next morning (9th) the wound began to slough, he was restless, pulse very weak, frequent and intermitting, extremities cold, he spit blood, and his respiration was difficult. We bathed him in warm water, and gave him wine; his pulse rose and his circulation became full and regular. The ab-

dominal swelling abated, he felt much better, and took nourishment. At three o'clock in the afternoon fever rose, he became very restless, and complained of pain and heat about the heart. His pulse at the same time was weak and frequent, and his extremities cold, we bathed them in warm water, and gave him an anodyne, after which he became easy, and rested well all night.

The 10th. The wound continued sloughing. Towards evening his fever rose higher than usual, his skin became hot and dry, he was taken with a violent cough, which gave him great pain, we administered an expectorant mixture, and he rested well through the night.

On the 11th the wound had sloughed so considerably as to form a hole into the cavity of the thorax, two thirds of an inch in diameter. The greatest part of the bruised flesh, seemed indeed to have sloughed off, down to the cartilages of the ribs, one of which had been perforated by the shot. He felt some anxiety in the breast, especially about the heart, and made an effort to puke, when a considerable quantity of thin pus flowed from the wound, and afforded him relief; he took an anodyne and rested well that night.

On the 12th the discharge continued, the wound put on a healthy appearance, and began to granulate.

It continued gradually to heal, and in three or four weeks was completely cicatrized; the œdematous swelling of the lower extremities disappeared in a week or two after the last date, and although extremely emaciated, he was able to walk about and had many appearances of getting well. When in this promising condition, he relapsed, apparently from indulging himself too freely in a meal of strong diet. From this relapse he did not recover, a hectic fever supervened, and he died on the night of the 11th of June, sixty-seven days after the accident.

### Appearances after death.

Leave was obtained to open the body, to which I proceeded next morning, assisted by Dr. Hudspeth. In dissecting up the integuments, we found several shot lodged against the

ribs. The membraneous covering of the ribs and cartilages, was in a state of inflammation, and bore slight marks of gangrene. On raising the sternum, I found part of the pericardium absorbed, and a part of it adhering to the surface of the heart, while near its base, it was morbidly attached to the pleura (mediastinum.) An adhesion of the left lobe of the lungs, to the pleura had also taken place; there was lodged in its cellular substance, at various depths, a number of shot, and the lung was considerably inflamed. The *right* lobe was nearly obliterated, it had entirely lost its cellular appearance, and become dense, hard, and tenacious, and its size was not more than one eighth of that of the inflated lung. It appeared to us, that respiration had never been performed in that lobe from the time it received the wound. A small portion of serum was found in the pleura. The heart appeared to be considerably enlarged, and was irregular on its surface, at the places where it adhered to the pericardium. In cutting through its parietes, we found some parts of them nearly cartilaginous, and on opening the right ventricle, we were astonished to find three shot lying loose in its cavity. This ventricle was greatly enlarged, and lined with a thick coat, from which there projected numerous papillæ of a dun colour, giving it the appearance of the upper surface of the tongue of an ox. On opening the right auricle, we found two shot in its cavity, also lying detached. The internal surface of the auricle did not appear to have sustained much injury from their presence. The shot had entered the heart about one third of the way from its base to its apex, the wounds made by them were at a little distance from each other; they had all cicatrized, but the spots were plainly to be seen. In the cavity of the peritoneum, as in that of the pleura, there was a small quantity of effused serum. The liver appeared to be somewhat enlarged, but not otherwise much diseased, except about the gall bladder and its duct, where there were some grangrenous appearances, and part of the colon was also gangrenous.

In conclusion I may remark, that notwithstanding the entire loss of one half of the organ of respiration, and the pres-

ence in the other of a number of shot, the absorption of a part of the pericardium, the adhesion of another part to the mediastinum, and the presence of five shot in the cavities of the heart, this boy lived two months and six days.

The dissection was performed in the presence of a number of spectators of respectability, who were all eye-witnesses to the facts above stated.

LEONARD RANDAL, M. D.

*Purdy, Mc'Nary County, Ten. Sept. 15th*, 1828.

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ART. II.—*Wounds of the Heart.* Translated from the DICTIONAIRE DE SCIENCES MEDICALES, vol. 43.

The foregoing case, so far as it relates to the wound of the heart at least, is not without interest. Supposing that some of our readers might be disposed to inquire, whether wounds of that organ have generally proved fatal, and whether the records of surgery furnish a parallel case to that reported by Dr. Randal, we have been induced to refer to that learned, circumstantial, and comprehensive work, the great French Dictionary of the Medical Sciences, and translate for this Journal, the article, *Wounds of the Heart.* It will be seen that it mentions no case similar to the above; nor do we recollect to have met with the report of any case in which an *extraneous* body resided, even for a short time, in the cavities of the heart. Dr. Randal's patient seems to have died from the wound of the lungs rather than that of the heart; though had the former been uninjured, he doubtless would have died, but at a more distant time, from disease of the latter. His death, however, would have been the immediate consequence, not of the wounds of the ventricle, but of the inflammation of its internal surface, occasioned by the mechanical action of the shot lodged within it. Had they passed out, and the lungs remained unhurt, the patient would probably have survived

the accident. The size of the shot is not mentioned, but it may be presumed that they were small.—Ed.

Translation.

*Wounds of the Heart.* In wounds penetrating the cavity of the chest, the heart may be injured, and its læsion is generally mortal; it is not, however, necessarily fatal if the foreign body has not penetrated into its cavities, as we may be convinced by reading the Treatise of Senac upon the structure and diseases of the heart, 2 volumes in 4to. A posthumous case of Wolff seems to prove, that there had been a cure in a man who had formerly received a wound in the heart. If we may credit the reports contained in the *Melanges des curieux de la nature*, cicatrices have been seen upon the hearts of domestic animals; and some observers declare that they have even met with them in man. M. Richerand, *Nosogr. chirurg. tom. iv*, relates that in dissecting the body of an individual who had once received the thrust of a sword above the left hypochondrium, he found the pericardium adhering to the heart by a cicatrix, which was itself attached to the parieties of the left ventricle.

Whenever an instrument wounds the base of the heart, death inevitably follows; for it is from this part that the great bloodvessels issue. In every case of this kind, some one of them must be injured, and with the blood that issues, life itself escapes: we may add that it is at the base of this organ, that the great cardiac plexus of nerves is spread out.

Numerous observations prove that men have lived for many days after receiving very deep wounds of the heart; some penetrating into one of the ventricles, others piercing both ventricles, and traversing the whole organ. Saviard cites the case of a man who had his heart pierced through and through, and who still lived from four to five days. On opening the body after death, Saviard found, that both the left ventricle and the *septum* which separates it from the right, had been perforated; and that some *coagula* of blood had stopped up the wound. A young man, according to Thomas Bartholin, was wounded between the third and fourth ribs of the

left side; he was able to return to his house, at a considerable distance from the place where he was stabbed, and survived, for five days, a narrow wound of the right ventricle.

In 1735, Morand exhibited to the Academy of Sciences, the heart of a soldier, who died at the Hospital of Charity, of a sword wound in the anterior and lateral part of the left side of the chest. For three days he did not experience any violent symptoms: a fever supervened on the fourth, with difficulty of respiration, and he died on the ninth. The sword had passed through the pericardium, the inferior part of the right ventricle, the diaphragm, and the liver. We read in the *Nouvelle Doctrine Chirurgicale*, of M. Leveille, the history of a young man, the left ventricle of whose heart, pierced vertically, received a wound three or four lines in length: he expired the seventh day. Dehors, Rhodius, and Fantoni, have seen individuals, wounded in the heart, survive fourteen, sixteen, seventeen, and even twenty days. To explain this phenomenon, some have conjectured that in the cases just cited, the wounds were so small that the blood only escaped *guttatim*, and that there formed in them a clot, the detachment of which at the end of one or many days, was followed by death. Others have supposed that the wounds were superficial, and that there remained a layer of fibres sufficiently strong to resist for a time, the escape of the blood; but that they were at length ruptured by the contraction of the heart, and the hæmorrhage which ensued, occasioned immediate death. Saucarette relates, in the *Melanges de Chirurgie*, a case reported by Levoyer, in which it was established, that the tricuspid valves, had given birth to a fatty body, which, by its interposition between the lips of a wound of the right ventricle, prevented the hæmorrhage, in a soldier, who lived for two days after the accident.

Ambrose Pare has recorded, that a gentleman, at Turin, when engaged in single combat, received a thrust of a sword under the left breast, upon which he discontinued the contest, but walked two hundred steps and then expired. The heart presented a wound, which would receive the end of the finger, and a great deal of blood was extravasated upon the

diaphragm. The two ventricles were found pierced through and through in a student of Ingolstadt, who, says Schenk, having received the puncture of a stylet, in the left side of the chest, walked a considerable distance, preserved his presence of mind during an hour, recommended himself to God, conversed and then died. Is it not probable in this case, that the instant the wound was inflicted, the heart contracted spasmodically, and thus closed the wound, and prevented the immediate escape of the blood? The hæmorrhage would take place, when the spasm having ceased, the wound would become extended to its proper dimensions.

M. Sue (*Recueil periodique de la Societe de Medicine de Paris*, viij p. 31) reports the history of a woman, who pierced the heart of her husband, when asleep, with a very long and sharp golden pin, which she had made expressly for the purpose. The right ventricle was penetrated completely through. She acknowledged her attrocious crime and was condemned to death.

The diagnostic of wounds of the heart is very difficult. In fact, their situations, a knowledge of the depth to which the instrument penetrated the chest, the abundant flow of blood, the trembling of the whole body, the faintness, the smallness and inequality of the pulse, the cold sweats, the anxiety, the coldness of the limbs, the difficulty of respiration, sometimes palpitations, and fever if life be prolonged, are symptoms common to wounds of the great vessels, of the pericardium, and of the diaphragm. When many days elapse between the infliction of the wound and the death of the patient, it is difficult to predict the state in which the heart will be found.

A wound of one of the coronary arteries may be mistaken for a wound of the heart. In the month of August 1697, Lamotte saw the captain of a regiment, Lamar, who received, behind, a thrust of a sword, between the fifth and sixth left ribs, the point of the instrument made its exit, a little above the nipple of the same side. The captain, cold and without pulse, expired two hours afterwards. They found the pericardium opened in two places; and an oblique wound,

not penetrating the heart, extended through the coronary artery: The cavity of the thorax was full of blood.

When wounds of the heart have a certain extent, they produce immediate death; if they are narrow, the life of the patient may be prolonged for some days.

What treatment can be opposed to such a wound? If it should not be speedily mortal, we ought to diminish the quantity of blood by copious venesection, administer antispasmodics, and keep the patient in the most perfect repose. We should be careful, not to probe or sound the wound, for fear of detaching the clot, and thus removing the only obstacle which opposes some resistance to the flow of the blood.

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ART. III.—*Some account of a fatal case of Softening of the Heart with apparent Emphysema of the Lungs. By the* EDITOR.

On the 30th of July, 1828, I was requested to visit Mr. R. B. and continued my attendance upon him till the 1st of September, when he died.

The patient was 67 years of age, a native of England, by occupation a cordwainer, of sober and industrious habits, in size above the ordinary standard, rather corpulent, but of an athletic temperament.

For more than half his life he had been afflicted, on both arms, with an eruptive disease, which seems to have been a variety of dry psoriasis. About 18 months before his death, it left those parts, and attacked his head and face. The itching in both cases was, occasionally, intolerable; and between the disease and the rubbing of the parts, which it occasioned, he lost all the hair of both his eyebrows; and the affected skin assumed a sooty complexion. Six or eight weeks before I saw him, it abated on the face, and fell down to his chest, from which it disappeared before his death. Soon after attacking this part, he experienced occasional paroxysms of pain in the region of the heart. When I was called in, at the time above mentioned, he was confined to his bed.

His respiration was somewhat embarrassed, but he had little or no cough; his pulse was intermitting, rather increased in frequency—but not very strong; he had a slight swelling of the abdomen, and considerable œdema of the feet and legs, which were habitually cold. His tongue was clean, and his bowels easily moved; but his appetite was gone, and he frequently vomited. His spirits were habitually depressed, and he often shed tears. In the day he slept a little; but his morbid vigilance and restlessness at night were distressing in the highest degree, and accompanied by a kind of delirium. His chest, under percussion, sounded well; and, through the stethoscope, a *feeble* respiratory murmur could be heard over every part. On resorting to the instrument with a view to the movements of the heart, I could distinctly perceive its intermissions, but neither its sound, impulse, nor volume seemed to be remarkable—they were indeed rather weak. He could lie on either side, and on his back, in a horizontal posture, without difficulty.

I was undecided as to the diagnosis of his malady; but on the whole, presumed it to be an original hepatic disorder occasioning the eruption, sooty complexion, nausea, and dropsical effusions. The irregular pulse I supposed to be caused by a hydro-pericardium.

He had been treated by his physician with stimulants and narcotics of all kinds, without the least benefit. Admonished by this, and guided by the existing symptoms, I put him on the use of the blue pill, a compound infusion of digitalis, and a hot salt bath, with frictions to his feet and legs. Under this treatment his bowels were kept regular, the temperature of his lower extremities was nearly restored, and a diuresis occurred, which was attended with the disappearance of all tumefaction from the abdomen and lower extremities. Such effects inspired a transient hope, that he might be cured; but I soon discovered that no further amendment was taking place; that his paroxysms of vomiting occurred oftener; that he was undergoing a rapid emaciation; that his pulse became daily more irregular; that his hypochondraism was transformed into a kind of melancholic delirium; under which he would rise

from his bed, and, fancying himself from home, endeavour to escape from his room; finally, that his morbid watchfulness, gave place to the opposite condition of taciturnity and stupor. It was now sufficiently obvious,that he laboured under a malady of the heart; but of what kind I was unable to decide. I bled him once. His blood was sizy, but no mitigation of the symptoms followed. A blister to the epigastrium did no good, either to the heart or stomach; cupping over the former organ was attempted; but by this time he had lost fat, till the integuments were so loose, as to fill the vacuum in the cups, and prevent the escape of blood. Finally, recourse was had to the sulphate of morphia, the bark and other tonics and stimulants, but they produced no sensible effects. In the closing stage of the malady, his mental faculties suffered still greater impairment, and his dyspnœa became much more distressing. He was long *in articulo mortis*, and exhibited an agitation of the heart, lungs, and muscles of respiration, which it was distressing to witness. The diaphragm especially, seemed to be strongly convulsed.

To abridge this narrative of symptoms, I would select the following as characteristic and constant:—Habitually intermitting pulse—occasional vomiting—epigastric anxiety—low spirits—debility and confusion of mind, and morbid vigilance succeeded by coma. Not long before his death he was taken out in a carriage, but was comatose on the jaunt.

### Dissection.

Permission was granted to examine the contents of the chest and abdomen; but circumstances limited us to a period of time, too short, for a perfect search into their condition.

On proceeding to open the thorax, the cartilages of several ribs, on each side, were found in a state of ossification, and required the use of the saw.

The lungs did not collapse, and *seemed* to be universally emphysematous. As far as examined, they were neither tuberculous nor hepatized. No pleuretic adhesions existed; but in examining for them, I was surprised to find a quantity of dark

fluid blood, in each side of the chest. In the right, it scarcely amounted to an ounce, but in the left there was, by estimate, more than two ounces.

The heart was enveloped in an extraordinary quantity of fat. It was of the common size; but far from the ordinary shape, its apex being enlarged and tuberous. It was evident from external inspection, that the pericardium contained no water; and on cutting through that membrane, with a view to turn out the heart, it was found adhering to that organ throughout its whole extent; indicating a universal pericarditis. At its junction with the pleura of the diaphragm, the effects of inflammation were equally obvious, and extended to some distance on the surrounding parts of that organ. At the point of union between the two, the pericardium had given way, and about the aperture there was a quantity of red, pulverulent, pulpy matter, which was the muscular substance of the heart, transformed by disease. In cutting upwards from this place at right angles to the septum, so as to divide the organ into halves, the whole extent of the diseased structure was exposed to view. For more than an inch, the parieties of each ventricle, together with the partition, had lost its fibrous texture, was softened, and flaky or laminated, so that the finger passed readily through it, in all directions. The transformation was greatest at the apex, indicating that it had commenced in that part. Its termination above was not pointed out by any line of demarkation, and the morbid action which occasioned it had continued to advance upwards to the time of death. The columnæ carneæ had experienced the fate of the parieties, but beyond the limits of the disorganized part, they were entire. Both they and the parieties, however, were paler, and more relaxed than in the healthy heart. The valves were free from degeneracy.

The immediate cause of the death of the patient was now made obvious. As long as the disorganization had not yet extended through the parieties, or the pericardium remained entire, the circulation could be maintained, but when the læsion became so great as to suffer blood to escape into the cavities of the pleura, the dyspnœa would of course increase;

at the same time the debility of the organ would prevent it from injecting itself, the lungs, brain, and spinal marrow, with the blood necessary to their support; while that which they received was undoubtedly, from the emphysema of the lungs, by no means sufficiently æreated, to enable it to sustain the energies of the system.

In the partial examination which was permitted, of the abdominal viscera, they were found to be healthy. Of the whole, the liver was examined with the greatest care, and contrary to my expectation, was unaltered in size, colour, and texture.

*Cincinnati, October 1st*, 1828.

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ART. IV.—*Extracts from Laennec on Diseases of the Chest, supplementary to the preceding case.*

As the *unique* and valuable Treatise of M. Laennec, is by no means so extensively disseminated and profoundly studied by the physicians of the Western States, as it deserves to be; we shall collect from it, and reprint under distinct heads, his principal observations on the different læsions, which existed in the foregoing case.—ED.

### 1.—EMPHYSEMA OF THE LUNGS.

The disease which I designate by this title is very little known, and has not hitherto been correctly described by any author. I for a long time thought it very uncommon, because I had observed only a few cases of it; but since I have made use of the stethoscope, I have verified its existence as well on the living as the dead subject, and am led to consider it as by no means unfrequent. I consider many cases of asthma, usually deemed nervous, as depending on this cause. The chief reason of this affection having been so completely overlooked is, that it is in some sort merely the *exageration* of the natural condition of the viscus.

In order that we may have a clear idea of the disease in question, it may be useful to advert to the natural organization of the pulmonary tissue. In examining, in a good light, the surface of the healthy lung, we can perceive, even with the naked eye, through the transparent pleura, which forms its covering, that the parenchyma of

the viscus consists of an aggregate of small vesicles, irregularly spheriod or ovoid, filled with air, and separated from each other by opaque white partitions. These vesicles,—which, as seen on the surface of the lung, have the appearance of small transparent points,—are not all of one size. The largest are one third or one fourth part the size of a millet-seed. These are grouped in masses or lobules, which are circumscribed by partitions of condensed cellular substance, very thin, but yet thicker and more opaque than the partitions which separate the individual air-cells. These larger partitions traverse the lungs in all directions, and, consequently, in cutting each other at every possible angle, form, on the surface, figures of very various shapes—lozenges, squares, triangles, &c. It is along these partitions that the black pulmonary matter of which we have already spoken, is most plentifully deposited.

In emphysema of the lungs, the size of the vesicles is much increased, and is less uniform. The greater number equal, or exceed the size of millet-seed, while some attain the magnitude of hemp-seed, cherry-stones, or even French beans (haricot). These latter are probably produced by the reunion of several of the air-cells through rupture of the intermediate partitions; sometimes, however, they appear to arise from the simple enlargement of a single vesicle. The largest of these dilated cells are often in no respect prominent on the surface of the lung; sometimes they form a slight projection. In the latter case the structure of the lung acquires a striking resemblance to the vesicular lungs of the Linnæan Reptilia. Sometimes, though more rarely, we observe on the surface of the lung single vesicles, distended to the size of a cherry-stone or larger, quite prominent, exactly globular, and apparently pediculated. I say *apparently* pediculated, because on cutting into them we find that there is no real pedicle, but merely a constriction at the point where the cell begins to rise beyond the surface of the lung. The cavity of these dilated cells descends some little way into the substance of the viscus, and there its walls do not collapse, when cut, as in the projecting portion. At the bottom of this inferior portion of the cavity, we find small openings by which the dilated cell communicates with the adjoining ones, and with the bronchia. That these projecting vesicles are produced by the dilatation of an air-cell, and are not owing to the extravasation of air under the pleura, is proved, as well by the prolongation, just mentioned, of their cavity into the pulmonary substance, as by the circumstance that we cannot force the contained air, by pressure with the finger, to leave its place and to pass under the contiguous pleura,—as would be the case if it were extravasated.

As long as the parts continue in the state above described, the disease consists merely in an excessive, permanent, and unnatural distention of the air-cells, the air being still contained in its proper cavities; but when the distention becomes still more considerable, or takes place with greater rapidity, the air-cells are ruptured in certain

points, and the surrounding cellular substance of the lung becomes distended by extravasated air, exactly in the same manner as in emphysema of the subcutaneous adipose membrane. In this case we find on the surface of the lung vesicles of an irregular form, which can be made to change their place by pressure with the finger. They vary in size from that of a hemp-seed to that of a walnut, or even an egg. Like the simply dilated cells, these vesicles contain nothing but air, which makes its escape on their being punctured with a pin. Sometimes the air, though truly *extravasated* under the pleura, cannot be displaced by pressure in the manner just mentioned. This happens when the extravasation is situated at the point of reunion of the partitions which divide the different groups of air-cells, as above mentioned. In this case the projection has usually a triangular shape, and is not very considerable.

I have never found this extravasated air penetrate, to any considerable extent, into the substance of these interlobular partitions, nor into the cellular substance which surrounds the larger blood-vessels and bronchial trunks; but I have seen the pulmonary substance in the interior of the lung lacerated by over-distention of the air-cells. These lacerated portions contain air, and sometimes also a small quantity of blood, either coagulated or loose; and the surrounding air-cells, which form the immediate walls of the excavation produced by the rupture, are observed to be loose, flabby, and without their natural globular figure.

The bronchial tubes, especially those of a small calibre, are sometimes very evidently dilated in those portions of the lung where the emphysema exists. This is easily proved by comparing the diseased and sound portions of the lungs. It is a thing to be expected; and it is, indeed, singular that it is not more common, since the cause which dilates the air-cells must act equally on the bronchia: it is, notwithstanding, very rare.

Emphysema may affect both lungs at the same time, one only, or a part of one or of both. In the latter case,—and indeed in any case, as long as there do not exist vesicles of considerable size on the superficies of the lungs,—it is easy to overlook the disease in the dead subject, and, as I have already said, I am convinced that this has often been done, not only by myself but by the best practical anatomists. For my own part I am convinced, that if we carefully examine the lungs of subjects who have long suffered from dyspnœa, from whatever cause, we shall almost always find more or fewer of the air-cells dilated. In lungs studded with tubercles, which presented no other symptom of emphysema, I have sometimes found two or three of the cells dilated to the size of a hemp-seed.

When the disease exists in a high degree, and occupies the whole of one or both lungs, one cannot help being struck with the appearance of the parts. The lungs seem as if confined in their natural cavity, and, when exposed, instead of collapsing as usual, they rise in some degree and project beyond the borders of the thorax. If

we examine them in this state they feel firmer than natural, and it is more than usually difficult to flatter them. The crepitation they afford on pressure, or on being cut into, is less, and of a kind somewhat different; it is more like the sound produced by the slow escape of air from a pair of bellows; and the air makes its escape from the cells much quicker than in a healthy state of the organ. When we detach the lung, the crepitation is found to be still less perceptible, and the sensation conveyed by pressing the parts is very like that produced by handling a pillow of down. On placing an emphysematous lung in a vessel of water it sinks much less than a healthy lung; sometimes it floats on the surface with scarcely any obvious immersion. The pulmonary tissue is drier in a lung affected with emphysema, than in a healthy one; and it is unusual to find, even towards the root of the lungs, any trace of the common serous or sanguinous engorgements usually found after death. The contrary, however, is sometimes the case. When a single lung is affected, it becomes much more voluminous than that of the other side, so much so, indeed, as sometimes to press on one side the heart and mediastinum, and to cause an evident enlargement of the bony compages of that side of the chest.

From these observations it results, that Emphysema of the lungs consists essentially in the dilatation of the air-cells, and that the *extravasation* of the air on the surface of the lungs, constituting the larger and more prominent vesicles, is a posterior affection, and not necessarily connected with the disease in question. The latter species of lesion is, moreover, one of slight consequence compared with the dilatation of the cells, as we can hope for its removal by absorption, as in other similar cases; whilst we can hardly conceive in what manner either nature or art can remedy the other morbid derangement.—*Philadelphia Ed.*—pp. 82—86.

These observations I wish to confine to the emphysema from internal causes, without at all including the disease mentioned by surgical writers under this name, produced by the introduction of foreign bodies into the trachea, and which disease they describe as consisting in an extravasation of air into the cellular substance interposed between the air-cells. It is indeed true that such an accident, as well as violent exertions of the lungs, in childbirth, &c. can and do sometimes produce emphysema of the neck, chest, &c.; but such an affection can only arise from rupture of the bronchial tubes or air-cells: and I am disposed to believe that in no such case is there any actual penetration, by the extravasated air, of the interlobular cellular substance of the lungs themselves.—p 88.

The general symptoms of this affection are rather equivocal. Dyspnœa being its most striking feature, it is one of the diseases usually confounded under the name of asthma. In it the respiration is habitually impeded, but is aggravated by occasional paroxysms

which are quite irregular in their return and duration. Like dyspnœa from any other cause, it is further increased by the usual causes, such as indigestion, mental emotion, elevated situation, violent exercise, especially that of mounting, &c. It is unaccompanied by any fever, and the pulse is, for the most part, regular. When the affection exists in a high degree, the skin assumes a dirty aspect, with a bluish tint in some places, especially the lips. In all the cases I have seen there was a slight degree of habitual cough, with a very slight mucous expectoration. The complaint often exists from childhood, and does not seem materially to abridge the duration of life. Like other dyspnœas it frequently, in the end, gives rise to hypertrophia or dilatation of the heart.

When this disease occupies only one side, or exists much more in one lung than the other, this side is evidently enlarged, and the intercostal spaces wider. It also yields a more distinct sound on percussion. When both sides are equally affected, the chest yields a very distinct sound throughout, and presents a more rounded outline, both before and behind, than is natural in the sound state of that cavity.

The pathognomonic sign of this disease is furnished by a comparison of the indications derived from percussion and auscultation.—The respiratory murmur is inaudible over the greater part of the chest, and is very feeble in the parts where it is audible: at the same time a very distinct sound is produced by percussion. If the disease is not very severe, the sound of the respiration is still audible, but in a much less degree than the sound on percussion would lead us to expect. There is also heard, in the affected parts, an occasional slight sibilous rattle.

The single circumstance—of the absence of the noise of respiration in a chest, which sounds well on percussion,—is sufficient to distinguish emphysema of the lungs from any other disease of the chest except pulmonary catarrh and pneumo-thorax. We have already made some remarks on the distinction between the former disease and emphysema; and may repeat, that the general symptoms are sufficient to enable any one to discriminate them. The means of distinguishing emphysema from pneumo-thorax will be noticed under the account of the latter disease.

It is difficult to account for the absence of the sound of respiration, in a disease which consists essentially in dilatation of the air-cells, and in which, consequently, there exists more air than is usual in the lungs. The fact is, probably, accounted for by the temporary obstruction of the bronchia by the increased mucous secretion which usually accompanies this disease, and by the partial compression of the air-cells by those dilated. This supposition is corroborated by the fact, that persons affected with this disease have their breath much oppressed, in the first instance, when they chance to catch cold; while the respiration improves immediately after the expecto-

ration commences, and even becomes better than before the catarrhal affection.—pp. 237–8.

This is a new disease, at least in practical medicine. It is only by the progress of pathological knowledge that we can hope for a true nosology. Under the term *Asthma*, as many very different diseases are confounded as under the term *Consumption*. It is hoped that the present work will be of no small use in leading to the discrimination of diseases, which cannot be confounded without the greatest injury to the subjects of them. Our author, unlike some of his countrymen, does not range all asthmatic affections as consequences of disease of the heart, although he evidently considers the disease as much more frequently symptomatic than idiophatic. If the term is to be retained in medicine, it ought to be restricted to the idiophatic or spasmodic variety; or used as the generic name comprehending the various species symptomatic of Bronchitis, Diseased Heart, Emphysema and Œdema of the Lungs, &c. as well as the nervous or the idiopathic, so well described by Dr. Bree. *Translator's note.*—p. 306.

### 2.—PERICARDITIS.

Pericarditis is inflammation of the serous membrane which lines the fibrous sac of the pericardium, the heart and large vessels. It may be either acute or chronic. This inflammation, like that of all membranes of the same kind, is marked by redness, more or less deep, a concrete albuminous exhalation and a sero-purulent effusion. The redness is almost always but slight in the acute disease. When it exists, it is for the most part only partially. It is most commonly punctuated, and looks as if the surface of the membrane was covered, here and there, with little specks of blood very close to each other. I have never perceived that this redness was accompanied by any thickening of the part. In some cases, wherein, to judge by the thickness of the false membranes, the inflammation appears to have been very great, no redness whatever can be discovered on the serous membrane, on removal of the membranous exudation. This concrete albuminous exudation commonly invests the whole surface of the pericardium, as well on the heart and large vessels, as on the sac. It rarely presents the appearance of an equable membranous layer, like the false membranes of pleurisy; on the contrary, its surface is most frequently marked by a great number of rough and irregular prominences. Sometimes the knobbed appearance of this exudation is very like what would result from the sudden separation of two pieces of slab joined by a pretty thick layer of butter; at other times, it is more like the internal surface of the second stomach of the calf, an observation made, in one case, by M. Corvisart. In certain cases this aspect of the false membrane has given rise to a singular error, having been mistaken for a variolous eruption in subjects dead of the small-pox. The consistence of this exudation is usually greater than that of the false membranes

of pleurisy; it is also thicker, and more firmly adherent to the subjacent parts; its colour is, however, the same, being of a pale yellow anolagous to that of pus.

The serum effused in inflammation of the pericardium is limpid, of a pale yellow colour, or slightly brownish. It contains few fragments of semi-concrete albumen; at least, it very rarely contains enough of these to give it a milky and turbid character. The quantity of this effusion is usually considerable in the commencement of the disease, often as much as a pound. M. Corvisart found it, in one case, to amount to four pounds. It would seem that the quantity of effused serum diminishes quickly, as soon as the violence of the inflammation begins to subside; as we usually find the proportion of serum and albuminous exudation nearly equal, while in pleurisy and peritonitis the serum is commonly from twenty to fifty times greater than that of the extravasated lymph. Very commonly even, in very violent cases, we find no effused serum, and only a thick and highly concrete albumen filling the whole cavity of the pericardium, and uniting the heart and large vessels to the exterior or loose portion of this membrane. In this case we may suppose that the effused serum has been quickly absorbed, and the two layers of false membrane cemented together; although it is not impossible that, in some cases, the more solid exudation may be the only one. We have seen that the same thing occasionally takes place in certain partial and sub-acute inflammations of the pleura; and several observations have led me to believe that the cartilaginous patches that sometimes are met with on the exterior of the lungs (see page 51 and page 132) are produced in the same manner.

When the disease terminates favourably, pseudo-membranous exudation, after a certain time, is converted into cellular substance, or rather into laminæ of the same nature as the serous membranes; that is to say, the laminæ are double, the exterior surface being exhalent, and the interior cellular, or adherent, and containing the vessels distributed to the part. Sometimes these laminæ are long, sometimes so short that the pericardium seems intimately adherent to the heart.

Before the conversion of false membranes into cellular tissue was well understood, the adhesion of the pericardium to the heart was regarded by divers authors as a cause of various and serious complaints. Lancisi and Vieussens considered it as constantly causing palpitation; Meckel, as rendering the pulse habitually small; and Senac, as productive of frequent faintings. Even M. Corvisart himself has fallen into some mistakes on this head. He admits three species of adhesions,—all of which I have just described as mere varieties or stages of the same affection. These are, 1st, a demi-concrete albuminous adhesion, which is the only one recognised by him as the consequence of pericarditis; 2nd, the very intimate or close cellular adhesion, deemed an effect of gouty or rheumatic affections; and 3rd, the extended or long cellular adhesion, the cause of which is not assigned by him.* M. Corvisart is further of

*See Treatise on the Heart, &c. by M. Corvisart.

opinion that no person can live, and preserve a good state of health, who is affected with a complete and close adhesion of the pericardium to the heart, or of the lungs to the pleura.

I have, however, met with many cases where this condition of parts was found after death, in which no disorder of the respiration or circulation existed during life. A case adduced by M. Corvisart in support of his opinion (op. cit. p. 34) appears to me rather conclusive against it, inasmuch as the appearances on dissection showed sufficient lesions in other organs to account for the symptoms referred by him to the adhesions between the heart and pericardium.

Sometimes, though rarely, the inflammation is confined to a part only—sometimes a very small part—of the pericardium. These partial inflammations are in proportion to the general, in point of frequency, hardly as one to ten. Their anatomical characters are precisely the same, only that the albuminous exudation is in them confined to the inflamed part. The serous effusion is sometimes as abundant as in the general disease, more commonly, however it is less. The inflammation in this case almost always terminates in being cured, by the transformation of the pseudo-membranous exudation into long serous laminæ; scarcely ever are these partial inflammations followed by the intimate adhesion of the parts.

We frequently find on the surface of the heart opaque white patches, sometimes as large as the palm of the hand, more commonly one half or one third this size, and often very small. They are nearly of the thickness of the nail, and have a degree of consistence equal to that of the membranes composed of condensed cellular substance, as, for instance, the exterior membrane of the lymphatic glands. They adhere so closely to the parts on which they lie, that it is difficult to ascertain, even by dissection, whether they are situated above or beneath the fine membrane covering the heart and great vessels. M. Corvisart is of opinion that they are beneath it. I have, however, ascertained the incorrectness of this opinion, as I have several times been able to remove the patches, leaving the serous membrane of the pericardium still untouched.

Are these patches the effect of partial pericarditis and the consequent conversion of the effused lymph into a condensed membranous cellular tissue? M. Corvisart considers them as produced without previous inflammation, and seated, as I have already said, beneath the serous surface of the pericardium. Both these notions are, I think, inadmissible, inasmuch as there exists no example of an albuminous exudation on the adherent surface of a serous membrane, and as facts without number prove that pseudo-membranous exudations are always the produce of inflammation.

I have lately met with a case which appears to me to throw some light on the question of the origin of these spots. In a man dead of peripneumony, I found a thin false membrane, very firm and of a yellowish colour, investing the right auricle and a portion of the ventricle of the same side, all the rest of the pericardium being

quite free, only containing in its cavity two or three ounces of a transparent and slightly yellow serum. Some parts of the false membrane, particularly on the auricle, were of a whiter colour and firmer than the rest, and exhibited an appearance almost the same as the white patches above described.

Chronic pericarditis is always general, occupying the whole internal surface of the serous membrane. This is commonly much redder than in the acute disease. The redness is formed by the close approximation of minute points, which look as if applied with a pencil. Rarely the chronic disease is accompanied by a pseudo-membranous exudation; and when this exists, it is thin, soft, friable, and entirely resembling a layer of very thick pus. In every case there exists a more or less copious effusion of a turbid, milky fluid, sometimes having quite a puriform character. I am led to believe that the close adhesion of the pericardium to the heart, is commonly the consequence of the absorption of this fluid, and that the adhesion by the long laminæ is the product of the acute disease. In one case I found a close and general adhesion of the pericardium to the heart and large vessels, by means of a false fibro-cartilaginous membrane, in every respect like those of the pleura.

From one case, cited by M. Corvisart, I am led to believe, that there may occasionally arise, subsequently to chronic inflammation of the pericardium, a tuberculous eruption similar to those frequently formed in the false membranes of the pleura and peritoneum. "The portion of the pericardium," he says, "which invests the heart, was of a greyish colour, thickened, unequal, wrinkled, crisp, and containing granulations of which the summit seemed ulcerated." I am rather led to consider these *granulations* as tubercles, because in the same subject "both lungs, although crepitous, were *granular* throughout." (Op. cit. obs. vii.)

In many cases of pericarditis, especially in the chronic disease, the muscular substance of the heart has lost its colour and become whitish. This loss of colour is sometimes attended by a notable degree of softening, and, at other times, the consistence is natural. Most writers have regarded this loss of colour as a mark of the inflammation of the heart itself, and most of the examples recorded of Carditis are merely cases of inflammation of the pericardium accompanied by this loss of colour. A great number of those collected by M. Corvisart are of this kind. For my own part I am disposed to doubt the correctness of the opinion that refers this loss of colour to inflammation. We can never be sure of the existence of inflammation in a muscular organ unless we find a deposition of pus among its fibres.—pp. 197—201.

1. *Acute Pericarditis.* There are few diseases attended by more variable symptoms, or of more difficult diagnosis, than this. Sometimes it appears with all the symptoms of a very violent disease of the chest; at others times it proves fatal without leading us, in the

least, to suspect its existence. Again, we find cases marked by all the symptoms usually attributed by nosologists to this disease, and in the subjects of which, after death, we discover no traces of its existence. The same difficulty is acknowledged, or at least encountered, by most practitioners. Corvisart attributes the difficulty to the circumstance of pericarditis being almost "always complicated with pleurisy, peripneumony, or some other disease of the chest, which marks its peculiar symptoms." These complications, which are very common, must, unquestionably, have this effect where they exist; I must, however, confess, that the most completely latent affections of this kind that I have met with, were in subjects whose thoracic viscera were, in every other respect, quite sound, and who had died of disease of the abdomen. These facts seem to prove that inflammation of the pericardium is sometimes a local affection of little violence, and of very inconsiderable influence on the general system or even on the circulation; while, in other cases, it is accompanied by an acute fever, and by such violent disorder of almost all the functions, as to compromise the life of the patient.

M. Corvisart is likewise of opinion that it is when the disease is very acute, that the symptoms are very obscure. "Its invasion," he says, "is sudden, its progress rapid, its termination almost instantaneous." When it exists in a less violent degree, but still acute, he thinks that it can be recognised by the following symptoms: viz. sense of heat in the region of the heart; great difficulty of respiration; greater colour of the left cheek than the right; pulse at first frequent, hard, and rarely irregular,—becoming about the third or fourth day, small, hard, contracted and often irregular; great anxiety, slight palpitations, partial faintings; *peculiar* change of features; and (towards the close of the disease) total or partial cessation of the local pain.

These symptoms are certainly sometimes present in pericarditis; but each, or all of them may be absent, and some of them are very rare. I have never observed the increased colour of the cheek, have rarely heard complaints of local heat or pain, and, in place of the progressive increase of irregularity in the pulse (as described by M. Corvisart,) I have uniformly found this irregularly intermitting, wiry, and almost insensible, from the very commencement of the disease.

I must admit that the stethoscope scarcely furnishes us with any more certain signs of this disease. The following appear to me to be the most common symptoms of the inflammation of the pericardium, when not latent: the contraction of the ventricles yields a greater shock, and sometimes a more marked sound, than usual, and, at intervals, feebler and shorter pulsations are perceived, which correspond with intermissions of the pulse, the smallness of which contrasts remarkably with the strength of the heart's pulsation.—When these symptoms come on suddenly in a person who had never been affected with disease of the heart, there is great probability of

their being the consequence of this disease. In addition, it is further common for the patient to have much dyspnœa and very great anxiety; and to suffer syncope on taking a few steps, or on moving suddenly in his bed.

2. *Chronic Pericarditis.* The signs of this variety are still more uncertain than those of the acute disease. I have attended several cases which I considered, throughout their whole course, as chronic inflammations of the pericardium, but which almost all were cured. In two or three cases only have I been able to verify the correctness of my diagnosis by examination after death; whilst very frequently I have found the pericardium full of pus and in a true state of chronic inflammation, without having been at all led to suspect such an affection. In the cases which have occurred within the last three years, I have found the symptoms to be precisely the same as in the acute disease, only less violent. From one to two years has elapsed before a cure has taken place; and when this has been effected the action of the heart and pulse has become natural and regular.–pp. 273–375.

### 3.—SOFTENING OF THE HEART.

This enlargement of the heart is always attended by a considerable increase of its consistence, except when conjoined with another affection of this organ, to be noticed presently, viz: ***softening of the heart.***—p. 165.

I have already noticed this condition of the heart. In it the muscular substance is sometimes so soft as to be almost friable, the fingers passing easily through the parietes of the ventricles. Whatever may have been the patient's disease, the heart is rarely filled with blood, and the ventricles equally collapse whatsoever may be their varying thickness. This affection of the heart is almost always attended by some change of colour in the organ. Sometimes this is deeper, and even quite violent; and this is particularly the case in fevers of the kind named *adynamique* by Pinel. More commonly, however, the softening of the heart is attended by a striking loss of colour, so as to resemble the palest dead leaf. This pale or yellowish tint does not always occupy the whole thickness of the heart; sometimes it is strongly marked in the central portions, and very little on the exterior or inferior surfaces. Frequently the left ventricle and interventricular septum exhibit this appearance, while the right ventricle retains its natural colour, and even a degree of firmness greater than natural. Again, we sometimes find here and there spots of the natural colour and consistence in hearts which are, every where else, much softened and quite yellowish. This variety of yellowish softening is particularly observable in those cases where dilatation is conjoined with a slight degree of thickening. It is also found in simple dilatation, although it is more common to find this state accompanied by that species of softening which is marked by an augmentation of the natural colour of the organ. There is a third

variety of softening of the heart, which will be noticed in another place, and which is attended by a pale white colour of the muscular substance. In this, the degree of softening never reaches that of friableness; often it is scarcely perceptible; but the parts are flabby, and the parietes of the ventricles quite fall together on being opened. This condition will be noticed under the head of inflammation of the pericardium, as it is peculiar to that disease.

It would seem that the softening of the heart discovered in subjects whose death has been very gradual, is an acute affection; it is evidently still more so where it exists only partially in the substance of the organ. On the contrary, in cases where the heart is softened and yellowish throughout, it is probable that the affection has existed for a long time. The deep-coloured softness observed in subjects dead of fever, may, I think, be compared to that adhesive softness of the other muscles often observed in these cases, and which is also accompanied by a degree of redness greater than natural. This softening of the heart, as well as the analogous *gluey* or *fishy* (gluant ou poisseux) state of the muscles, is particularly observable in putrid fevers, particularly when these exhibit the phenomena formerly considered as marks of putridity—viz: livid intumescence of the face, softening of the lips, gums, and internal membrane of the mouth, black coating on the tongue and gums, earthly aspect of the skin, distended abdomen and very fetid dejections. I cannot assert that this softening of the heart exists in all kinds of continued fevers, but I have met with it constantly in such cases as I have attended to. Could it account for that frequency of pulse which exists, sometimes for several weeks, in convalescence from fevers, although the patient continues to regain flesh and vigor?—pp. 171–2.

Cases of total softening of the heart are usually accompanied by a certain degree of cachexy, even when the individuals are otherwise in tolerable health. When such subjects are attacked with dilatation or hypertrophia of the heart, as almost always happens, they do not present the usual swollen and livid state of the face observable in other cases of this sort.

When softening exists along with dilatation of the ventricles, the sound produced by the contraction of these cavities, although loud, is yet dull, and without the clearness which attends common dilatation. When it is complicated with hypertrophia, the sound of the contraction of the ventricles is so obtuse as to be nearly inaudible; and in extreme cases, the impulse of the heart is attended by no noise whatever.—p. 271.

## Art. V.—*Notices concerning the Dengue.*

### 1. Editorial Remarks.

The physicians of the middle and northern states have learned through the newspapers, that within the present year, a febrile disease, exhibiting some novel and peculiar symptoms, has been epidemic in the West Indies and in the Southern border of the United States. From the Spanish inhabitants of the former, it has received the appellation of *El Dengue* or *affectation*, for what reason does not clearly appear. The physicians of the region where it has prevailed have not yet bestowed upon it an appropriate name, and perhaps it is not, in reality, entitled to such a distinction, for it may be nothing more than a modification of the great autumnal endemic of the South.

No case of this malady has fallen under our observation, and, as far as we have heard, it has not extended north of the 34th degree of latitude; except on board of steam boats, ascending the Mississippi from New-Orleans.

When on a late visit to a neighbouring town, one of our medical friends mentioned to us a mistake relative to this disease, which deserves to be stated, to the end, that others may guard against a similar error. A gentlemen taken ill, was pronounced by his physician to labour under *Dengue*, and accordingly, treated to his manifest injury, with hot sudorifics, for eight or ten days. At the end of that time, our informant was called into consultation, and found it a well marked case of *inflammatory Rheumatism*, which was cured by copious bloodletting and the usual antiphlogistic means.

We have been favoured by a young medical gentleman of South Alabama, now in this city, with a memorandum concerning this malady, which is inserted below. He has himself experienced it, and witnessed it, repeatedly, in others. We also find in an eastern Journal, just received, a communication from a West India physician, which we shall subjoin, as being the fullest account we have seen.

2. *Memoranda relative to the Dengue or Spanish Fever, by* Dr. D. W. Vance, of Alabama.

This disease made its appearance in New-Orleans, in the month of June last, and spread rapidly in all directions. It attacked at an early period, the inhabitants of all crowded places, such as taverns, hotels, and steam boats. It affected persons of all ages and colours, and in some cases attacked the same individual a second time, with increased violence. Some observers have told me, that children and females are, in general, more severely afflicted than men; but of this I am not able to say any thing decisive; I have seen, however, that corpulent and robust persons have it more violently than the lean.

My observations on this malady, were chiefly made on board the steam boat General Pike, during a voyage from New-Orleans to Louisville, in the month of August. There were about one hundred persons in the boat, and nearly the whole, including myself, experienced the disease.

*Of its symptoms.* The onset of the complaint is often severe and distressing. It is attended with flushed face, violent headache, giddiness, soreness and aching of all the bones, dry and harsh skin, in some cases spasms, prostration of strength, and high fever, with a hard, frequent, and full pulse. These symptoms continue, with but little abatement or alteration, for 12, 24, or 36 hours, and in plethoric habits for 48, or longer; during which time, the debility of the patient is extreme, and the aching of the joints in the worst cases, almost as great as if they were luxated. The nervous system, in all instances, seems to be greatly and generally disturbed; and it frequently leaves the intellectual functions in a state of debility and confusion. It has been sometimes mistaken for ordinary bilious fever, and treated accordingly, with very bad effect.

*Of the cure.* The remedies found most successful in the Dengue, are all of a mild nature. The most efficient are lemonade, herb teas, demulcents, and other diaphoretics; with a gentle cathartic. When spasms occur, laudanum, ether, and other diffusible stimuli are required. External applications have done good in some cases. Brandy and a liniment

composed of burnt brandy simmered with olive oil or spermaceti, with frictions, are the means which I have seen employed externally. The warm bath has also been useful, especially when there was a tendency to spasms. Very different, however, is the effect of the cold bath, which as far as I know, is highly prejudicial. I have, indeed, seen it prove fatal in several instances. The lancet has been sometimes resorted to, but with little or no advantage.

When the Dengue recedes, the patient is left for some time with a considerable soreness of the limbs, which, in many cases, resembles chronic rheumatism. Of its effect on the mind I have already spoken.

It is highly necessary for every convalescent from this malady, carefully to guard against taking cold.

Such are the observations which I have had an opportunity of making, on this singular malady.

D. W. VANCE.

*Cincinnati, October*, 1828.

3. *Remarks on the Dengue.* By DAVID OSGOOD, M. D. of Havana.

[From the Boston Medical and Surgical Journal, No. 36.]

Late in April, the present year, after a continuation of hot weather, with but slight variations, during the different seasons of this and the last preceding year, (1827 and 1828,) a new epidemic fever arose in Havana and its vicinity, which attacked the inhabitants generally, and almost simultaneously.

The same disease took place, earlier in the spring, in the other seaport towns and cities of the West Indies; and in the course of the summer it has appeared in some of those of the United States.

The people of Havana have named this strange fever *El Dengue*, which word signifies, literally, affectation.

During the whole of the last winter and spring, previously to the taking place of this new fever, many of the persons who had lately arrived in this climate were seized with the yellow fever. But as soon as the former began to prevail, the latter disappeared; although the residents, who had usually been exempt from the yellow fever, were seen, as well as the transient subjects, with symptoms resembling those of this latter disease, viz: after sensations of uncommon languor, chilliness, and pain in the tendons of the smaller joints, they were suddenly attacked with a burning heat and redness of the skin, pains in the muscles of the limbs, or pain in the forehead, and a loathing, or vomiting of whatever was taken into the stomach.

The fever continued for one, two, or three days, and then usually terminated with a free sweating, which freed the patient likewise from his pains. But many after leaving their beds suffered by a renewal of their pains, which in some have become chronic. Others have also had a renewed attack of the fever.

This disease of the season has not proved fatal, except to a few amongst the strangers, in whom the sweating stage of it did not easily take place, or was suddenly stopped by exposure to the open air.

This moderation of the symptoms, in the generality of the subjects, I attribute to a gradual reduction of the vigor of their constitutions, by the influence upon them of the before-mentioned almost uninterrupted continuance of hot weather during all the seasons of the two last years past, and beyond what has happened in former years; which influence has rendered the native inhabitants, as well as the strangers in the climate, liable to be affected in this new way, by the same specific cause that, at other times, has produced the yellow fever in the latter class of the subjects.

The Dengue has, as yet, only prevailed in the places to which the yellow fever has been limited. It has not spread into the interior of Cuba, although at the end of five months from the time of its rise in Havana, it continues to attack most of the persons who come to the city from the country, or from any place where it has not prevailed.

2. The fatality of the yellow fever is known to be the greatest in the most robust of its subjects; and in those who, besides their recent exposure to the air of the West India climate, indulge themselves in hard drinking, or fatigue themselves by much exercise in the sun, whereby their strength is *suddenly depressed.*

3. On the contrary, with a slight typhus infection contracted in a close prison, where hard drinking, or taking long walks, cannot be practised, the additional influence of the air of the climate, when it has caused a fever by sudden exposure to it, the symptoms have generally been very mild.

4. The late comers to the West Indies from the colder latitudes, experience, soon after their arrival, a degree of exhaustion, and soreness in their muscles, like that which persons every where feel after violent exercise, or very great fatigue.

The debility and soreness of the muscles and tendons in the subjects with the dengue, before and after their symptoms of fever, may be attributed to the same cause.

5. In several instances, since the prevalence of the dengue, the worst symptoms of the yellow fever have supervened on those of the former.

I may also mention, here, that I know several persons now long residents in this place, who since arriving here from abroad have escaped from an attack of the yellow fever, and have not hitherto been attacked by the dengue; whereas every other person to whom I put the question, "Have you had the dengue?" answers "Yes."

From the facts, &c. above stated, I have been led to consider the specific cause of the disease of the present time, and that of the yellow fever, to be the same. The subjects have become altered in their constitutions; but the generating cause both of the new and of the old fever, remains unchanged.

Although aware that this opinion may be thought too theoretical, yet I venture to advance it for the sake of a practical inference to be drawn from the viewing of it in this light.

In the dengue, as before noticed, when a sweating takes place, it carries off the burning heat and redness of the skin, and at the same time the loathing and sickness of the stomach. Hence, for the most part, no other than the antiphlogistic treatment has been found beneficial to the patients; but for the few in whom, under such treatment, a sweat has not easily flowed by the end of the second, or the beginning of the third day, the more active, and especially depleting means as in the yellow fever, have been found requisite.

But as the black vomit, the most dreaded symptom of the yellow fever, cannot, with certainty, be overcome by any remedy received into the stomach, to act directly upon that organ, we may take a hint from the dengue, and regard the affection of the stomach as being sympathetic with that of the skin, in its burning state. Agreeably to this idea, it is well known, that, by means of tepid emollient fomentations and clysters, and such diluting drinks as are best calculated to remove thirst, perseveringly employed early in the disease, and at a later period of it by more stimulating applications to the skin, the black vomit has often been prevented, and sometimes stopped

# MISCELLANEOUS INTELLIGENCE.

## I.—Analectic.

1. *Ligature in Nævi Materni.*–Mr. Lawrence, surgeon to St. Bartholomew's hospital, communicates a number of cases of this nature successfully treated by ligature by himself and Mr. White, surgeons to the Westminster hospital, from whom he learned this mode of treatment. The cases to which it is applicable, together with the mode of operating, may be learned from the following case, selected from a considerable number.

*Case. I.*—J. B. an infant four months old, was brought to St. Bartholomew's Hospital in February, 1827.

At the time of birth, a slight reddish discoloration of the skin, as large as a sixpence, was observed at the upper part of the back; this red spot was not elevated. Having remained of the same size and in the same state for three months, it began to enlarge, became elevated above the surrounding sound skin, changed its colour from red to a dull purple, and frequently discharged blood from openings on its surface. It continued to grow rapidly until the time of admission, when it presented a circular tumour five inches and a half in circumference, and projecting about three quarters of an inch. Its surface was slightly irregular, of nearly uniform prominence, and a little depressed in the middle; it was rather larger at the edge than at the base, which rendered the application of the ligature easy. It was of the kind denominated by Mr. Wardrop, subcutaneous nævus. Although the skin had been distended and thus rendered thin by the growth of the tumour, it could be easily pinched up into folds on the surface, so that the disease was decidedly below the integuments. Its connexion to the muscles of the back was equally loose, and it could be moved from side to side with the greatest ease, or drawn up by the finger and thumb, and detached from the subjacent parts. It had a mottled appearance, being mostly of a dark livid colour.—It was soft, and gave a sensation to the fingers like a collection of varicious vessels. Pressure diminished it considerably, and made it of lighter colour; it soon filled again. When the child cried or strained, it became larger and of a deep purple tint.

On the 17th of February I tied the tumour, elevating it from the muscles of the back with one hand, while I passed a large curved needle under the middle of its basis with the other, carrying the point of the needle in and out again, close to the edge of the base of the swelling. When the needle had been cut out, the two ends of the ligature, which had been left of equal length, formed two dis

tinct ligatures applicable to the immediate purpose of the operation. They were then tied, as tightly as they could be drawn, just in the line of distinction between the tumour and the sound skin. The firm pressure thus made on the base caused a cracking of the tumour at the surface, from which a few drops of arterial blood escaped before the ligature was quite tight. The infant seemed to suffer considerably when the ligatures were tied, the process being attended with considerable dragging and stretching of the surrounding skin, which was thrown into several large folds. A soft rag dipped in cold water was laid over the part, and occasionally moistened. For thirty-six hours the child was restless, crying almost incessantly and occasionally convulsed; at the end of that time it took the breast, which it had previously refused. An inconsiderable oozing of blood took place. On the 9th I sliced off the tumour, which had become almost black. The ligatures were quite loose on the 20th, and I removed them. A large slough occupied the centre of the wound, extending deeply; it came away in a few days under the application of bread poultice. The wound then granulated and assumed a perfectly healthy appearance, all the unpleasant symptoms having subsided after the removal of the ligatures. The process of cicatrization was slow, but it was at last firmly completed; and the former situation of this large tumour is now denoted by a very slight scar.

The substance of the tumour, when it was sliced off on the 19th, was tolerably compact: its cut surface presented the sections of numerous blood-vessels, apparently venous, filled with coagulated blood: the largest were equal to an ordinary writing quill. These vessels were connected by a firm grayish substance, of a somewhat fibrous texture. There was no appearance of cells.

What is the nature of such vessels? The colour of the part during life, the size of the tubes, and the appearance of their coats lead us to suppose that they are veins. How then does it happen that the profuse bleeding, which takes place when the tumour is cut, is arterial? And how is it that the growth of such structures is arrested, and their absorption produced by tying the principal artery of the part?—*Amer. Med. Rec. No.* 44.

2. *Acupuncture in Rheumatism* has been extensively practised by Dr. Elliott, in private and at St. Thomas's Hospital. He thinks one needle allowed to remain an hour or two in a part, is more efficient than several used but for a few minutes.

Three or four applications to each painful part are generally required, and he has known the disease not yield until the ninth.

Out of forty-two cases taken from the hospital books in succession, thirty were cured.—*Ibid.*

3. *On the Treatment of Colica Pictonum.* [*By M. M. Chevalier and Rayer.*]—Three principal indications present themselves in

the treatment of poisoning caused by the salts and oxides of lead, and particularly in the colic produced by that metal. The first is to neutralize the poison by the internal administration of hydrosulphurous water, in quantities proportioned to the known or presumed quantity of the noxious matter which has been received into the system. M. Rayer has employed the water of Enghien in his experiments with success. An artificial water, prepared according to the formulæ, No. 1 and 2, may also be employed.

No. 1. Take eight gallons of water, and thirty-five fluid ounces of water saturated with hydrosulphuric acid, to which has been added ten grains of the subcarbonate of soda previously to the saturation. Mix.

No. 2. Take four grains of sulphuret of potass, and dissolve it in thirty-five fluid ounces of water.

The good effects of these fluids are in an inverse ratio to the time which has elapsed since receiving the poison. Many obstinate cases of colic from lead have rapidly recovered under this treatment.

The second indication is to combat constipation when it exists. This is accomplished by purgatives of a strength proportioned to the degree of the constipation. Pills of equal quantities of jalap and scammony should be repeated until copious evacuations be produced. In cases of obstinacy, a lavement of infusion of senna and caster oil should be administered.

The third indication is to allay the pain and to procure sleep: for which purpose eight or ten drops of laudanum of Rousseau, or a grain and a half of opium, should be given.

Under this plan of treatment, the disease rapidly disappears, sometimes on the second day, often on the third or fourth, and it rarely continues beyond the sixth.

M. Rayer has never seen a relapse, although he has thought proper to retain some of the patients in the hospital for several days after their recovery.—*Journal de Clinique Medicale.—Ibid.*

4. *Obstruction on the arteries.*—This was a case of gangrene of the left leg, arising without any obvious cause—the circumstances of the case led to the operation of amputation, which was performed by Mr. Syme. The patient died in a short time after, and on dissection the right internal iliac artery was found entirely obstructed from its origin, as were also the right and left internal iliac veins. The left femoral was pervious to the ligature, but the profunda and corresponding vein were firmly obstructed, also the same vessels on the right side. The whole of the arteries appeared to be in a healthy condition as to texture. Mr. Syme's opinion of the case is, that it was one of acute inflammation of the arteries, and in conclusion, ventures to suggest "that obstruction of arteries, as a consequence of effusion from their own coats, may not be so rare an occurrence as it would seem to be, from the extreme rarity of such cases on record."

5. *Encephalitis cured by Acupuncturation.*—G. Grassi, after being for a long time subject to frequent fits of dulness, caused by cerebral congestions, and which was removed by bleeding and purging, was seized with apoplexy, with hemiplegia, loss of voice, grinding of the teeth, irregular breathing, intermittent and sometimes scarcely perceptible pulse, without any signs of gastro-intestinal irritation. Repeated bleedings and purges brought him back to a pretty good state of health. At the end of some months all symptoms of local affection had disappeared; the pulse was regular; the voice a little returned, as well as the movements of the affected limbs in part, when Dr. Strambio proposed electro-puncturation to complete the cure. Dr. Fantonelli performed this operation, which was done by inserting a needle at the lower part of the neck, on the side opposite to that affected; then another needle into the external ankle of the affected limb; a metallic wire, communicating with two needles, was connected with a voltaic pile of five plates only. The introducing of the needles was not at all painful, but at each shock severe pains and violent contractions were induced in the muscles nearest to the needles, and chiefly in those of the affected side, (at the negative pile the pain was greatest.) After five or six shocks it was stopped, as the pain was intolerable.

The electro-puncturation was repeated three times, with intervals of one day. After the first, the patient felt himself livelier, and moved more freely. At the second trial, he felt some inconvenience; and, on the third, he was seized with violent fever and symptoms of cerebral congestion. Bleedings and revulsives soon calmed this encephalitis, but his former ailments became just as they were before the trials were attempted.—*Giornale Critica di Med. Analitica, Milano.—Ibid.*

6. *Wounds and Ulcers cured by plates of Lead.*—In all wounds, the simpler the treatment the better. This principle of surgery is now so generally recognised, that there remain few practitioners who have not laid aside all multiform and compound applications to sores, and which only retard their cure. Quiet, cleanliness, dressings with lint, either dry or spread with salve, form the basis of treatment now followed, unless in very particular cases. M. Reveille Parise has suggested a still simpler mode of treatment. In a Memoir read some time since at the Academie de Medicine, he states that he had derived the most advantageous results from plates of lead applied to wounds. Guy de Chauliac and Ambrose Pare had before employed, in the cure of ulcers, plates of lead rubbed with mercury; but this means, neglected by men of science, passed into the hands of the vulgar, where it is still occasionally met with. The following fact will show this.

A military invalid had applied to his ulcers a plate of lead: surprised to observe that they regarded his being dressed by this means as a new fact, he said that, twenty years before, having received a

wound on the field of battle, he cured himself by applying a leaden bullet that he beat out with a flint. He said that this remedy was known to many soldiers, who always tried it when their wounds were not sufficiently bad to go into hospital.

M. Parise, however, has not the less merit in restoring to science a mode of cure which may be very useful. Recent wounds are almost the only ones in which he has tried his plan. His success induced M. le Baron Yvans to repeat the trials; and the great number of people affected with ulcers in the establishment at the head of which he is, gave him great facility to make the experiment.

M. Menon has not seen a sufficient number of recent wounds tried with this means, to speak of its effect; but more than sixty cases of ulcers successfully treated in this way convince him that the plates of lead form the best topical application to ulcers. Among these cases, some have been of thirty years' standing. When they were not completely cured, the ulcer quickly put on a new aspect; its edges thickened, diminished in size, and soon assumed a more satisfactory appearance. It was remarked that several ulcers, which had never been able to be cicatrised, were so by this new method, and that those in which it failed were never cured by any other means: and we may conclude that these last were incurable, and that nature, more powerful than art, resisted the suppression of an evacuation that custom had rendered necessary. At first this method was confined to simple ulcers: emboldened by success, M. Yvans tried it on ulcers evidently in an inflammatory state, and which before he would have treated by topical emollients. He was astonished to see that the lead did not only not increase pain, but the inflammatory symptoms diminished, and shortly the ulcer was in a healthy state. In fact, many cases prove that this substance acts with a promptitude quite surprising in bringing ulcers, foul at bottom and having all those appearances that are implied by the name "ulceres sordides," back to a healthy state. Three or four days have in general been sufficient, and soon after cicatrization has generally begun to take place.

The fact being established that lead, in the form of plates, applied to wounds is beneficial, it would be interesting to know how it acts. Does this lead enjoy any specific property? Can it have within it something peculiar which, changing the kind of irritation of the ulcerated surface, disposes it to heal? Is there any chemical action takes place, from which might result a compound analogous to the acetate of lead which Goulard and others have so much praised? M. Menon thinks not; for it appears that plates of brass, or gold, or silver, have nearly the same results. Lead is, however, preferable, both being cheaper and also more flexible, so that it is modelled more exactly to the surface. M. Menon thinks it acts mechanically, exercising slight compression on the borders of the wound, and keeping in contact with it the pus which many physiologists think necessary to the formation of a cicatrix.

This mode of dressing consists in the simple application of a thin plate of lead on the ulcer, and keeping it in its place by a bandage. When it is wished to be removed, the surface of the ulcer and the plate are both wiped clean, and again brought into contact. Nothing can be simpler; and it is a great advantage, not exposing the surface of the sore too long to the action of the air. If granulations shoot up too fast, touch them with lunar caustic, or powder them with calcined alum.—*London Med. and Phys. Journal.*

7. *Remarkable disease of the Epiploon.*—The following melancholy case is recorded by Dr. Strambio, in an Italian Journal, (*Annali di Med.*) with the appearances on dissection.

A young woman 18 years of age, after enjoying herself at a carnival ball, began to complain of pains in the right side of the abdomen, which increased in size, and led to the suspicion that she was pregnant. Various medicines were ineffectually administered, and when M. Strambio was consulted, the patient presented the following phenomena:—face pale—pulse hard and frequent—skin burning hot—vomiting when food was taken into the stomach—abdomen large, but more so in the right than in the left side. On examination, several indolent tumours were felt, which were not painful unless strongly pressed. The left mamma was shrunk, and the right more enlarged than natural, as well as hard. There was supposed to be inflammation of the stomach, and depletion was practised, locally and generally, with fomentations, &c. It was found that a tumour pressed on the rectum, and prevented the introduction of a pipe, or the finger. All the symptoms increased in severity, and hydrothorax supervened, with infiltration of the left lower extremity. Death soon took place.

On dissection, a large effusion was found in the chest and also in the pericardium. The omentum, detached from the viscera to which it naturally adheres, was degenerated into an elastic substance, resembling brain rather than fat, occupying the whole of the abdomen, and disposed into masses of various sizes, connected by prolongations of the original omentum or membranous strips. The left kidney, the spleen, the abdominal aorta, the rectum, the ovaries, and the uterus, were involved in this morbid mass. The other organs were unaltered. The disease was considered to be caused by a chronic phlegmasia of the epiploon, excited by a fall which the young woman had experienced about a year before her death.—*Medico Chir. Rev. for* 1828.

8. *Laryngitis.*—In a short clinical report, published by Dr. Martinet, in a late number of the Revue Medicale, an interesting case is detailed, of which we shall give the particulars in this place.

1. *Angina Suffocans.* The author avoids entering into the discussion, whether croup be a disease essentially different from cynanche laryngea et trachealis. The angina suffocans is an inflam-

mation about the top of the air-passage, and presents some differences, according as the inflammation is seated in one or other part of the larynx or its appendages. The alteration of the voice, the sound of the cough, the distressing paroxysms of suffocation, the kind of expectoration, (when there is expectoration,) suffice to characterize *cynanche laryngea and cyn. trachealis;* while, on the other hand, the tumefaction and redness of the velum palati, tonsils, and pharynx, together with the presence of crusts or exudations of different sizes, on these parts—the difficulty, or even impossibility, of swallowing—the regurgitation of liquids through the nose, these will readily mark the existence of cynanche pharyngea and tonsillaris. Œdema of the glottis may be suspected, when there is a sensation as if a foreign body were placed in the throat, and more especially when by the finger, a kind of ring or ridge is felt surrounding the rima glottidis—attended with extreme dyspnœa. But often there is a complication of all these affections in the same subject.

In some instances, the angina suffocans does not show unequivocal characters of *inflammation*, and then our practice is necessarily embarrassed—some trusting to depletion, some to calomel, and others to emetics and counter-irritation. In this state of vacillation as to the best method of treatment, the patient often dies by the rapidity of the disease, and the derangement which some of the most vital functions in the body experience. The following case will show the path which we ought to pursue, where the subject is young and vigorous. It will also demonstrate the power of art over one disease at least.

*Case.* Peter Chapion, 26 years of age, of vigorous and sanguineous constitution, came into the Hotel Dieu on the 11th March, being that day seized with acute pain in the throat, about the top of the larynx, quickly followed by difficulty of breathing, and sense of suffocation. Eight ounces of blood were taken from the arm, but the sense of suffocation continued, and made progress, without increase of frequency in the pulse, or elevation of heat on the surface. *Thirty leeches* were applied round the neck, and, the same evening, venesection was repeated to *twenty ounces.* The dyspnœa was relieved by this last bleeding, and the sense of suffocation rendered less imminent. *Mustard pediluvia.* *12th.* The pain at the top of the throat is still acute—the voice is altered from its natural tenor, being much weaker—respiration difficult and sonorous, but not accompanied with much sense of suffocation—tumefaction of the tonsils and uvula—no appearance of albuminous exudation on any part of the fauces—the deglutition is difficult—pain on pressure of the larynx. Some of the physicians, on introducing the finger, thought they felt a swelling about the rima glottidis. There was an expuition of reddish and sanguinolent saliva—pulse easily compressible and very little increased in frequency—heat moderate- countenance indicative of anxiety—great prostration of strength—face neither pale nor flushed, but the circulation apparently impeded—in-

ability to deviate from the upright posture. *Venesection—blistur to the nucha—purgatives—sinapisms to the lower extremities.* This day passed, like the preceding, in a state of constant dyspnœa, with occasional paroxysms of sense of suffocation, not, however, so threatening as to require tracheotomy. *Sixty leeches were applied round the neck*, and a cataplasm over the bites. 13*th*. The sense of suffocation is diminished, and the patient can fill the chest, by a deep inspiration—expectoration very difficult, but changing in character to the muco-purulent form. *Twenty more leeches to the neck.* On examination with the stethoscope, the breathing was heard much more distinctly in one side of the chest than in the other, and the *rale muqueux* indicated inflammatory action of the mucous membrane of the bronchia. From this time, the expectoration became freer, and the dyspnœa less, until convalescence was established.

*Remarks.* The above is a good sample of that dangerous disease laryngitis. The depletion, except in the first instance, was bold and decided; but the Hotel Dieu physicians deprived themselves of a powerful means of checking inflammatory action, by withholding nauseating doses of antimony and calomel, which increase the intestinal secretions, and save a great deal sanguineous depletion.—*Ibid.*

9. *Enlargement of the Upper Lip.*—In a recent number of the Journal de Progres, Dr. Paillard has drawn the attention of his brethren to the treatment of this peculiar deformity. He observes that this said enlargement is generally considered as an effect, as well as a sign of scrofula. It usually appears in scrofulous subjects, and in that period of life when scrofula prevails—and it generally disappears when the scrofulous diathesis ceases, or is overcome. But we occasionally observe this phenomenon where there is no scrofula in the constitution, and it sometimes remains as a striking deformity, after the other symptoms of scrofula have entirely vanished.

If, in a scrofulous subject, we examine this swelling of the upper lip, we find the cellular tissue more abundant than natural, and infiltrated with a serous fluid—the muscles more pale and flabby than in a healthy subject—the skin very pallid or shining, and, as it were, infiltrated. Sometimes this swelling is covered with ulcerations, which discharge a matter that forms into scabs, which fall off, and are renewed from time to time. The cellular tissue, then, appears to be the seat of this affection. But the treatment differs, according as the complaint is an indication of scrofula, or independent of that diathesis. In the *former* case, local treatment is of no avail, and we must cure the local complaint through the medium of the constitution. In the *latter* case, the local treatment now to be mentioned is efficacious. This operation consists in an incision from one angle of the mouth to the other, along the inner side of the upper lip, and thus, in fact, dissecting away a mass of condensed cellular tissue forming the swelling. The hæmorrhage is very great; but it either ceases spontaneously, or may be restrained by ligature of the

bleeding vessels. The operation is very painful, but not dangerous, and it removes a deformity which gives a peculiarly stupid cast of countenance to the individual afflicted with it. For the cases detailed in illustration of the above proceeding, we must refer to the Journal already quoted, vol. 3, 1827.—*Ibid.*

10. *Baron Larrey on Fractures.*—By a private communication, we learn that the above mentioned veteran has projected and makes use of, an extraordinary dressing for fractured limbs. He encircles the whole of the member with compresses and bandages soaked in gummy or albuminous substances, which, on drying, form a complete immoveable, and inflexible case for the injured limb. This he applies, whether the fracture be simple or compound, and never takes it off till the cure is completed, whatever may be the degree of swelling, infiltration, or even suppuration, that supervenes. The swelling is either prevented, or subsides, without danger—the infiltration or suppurations are absorbed—and the process of re-union goes on safely. We think it not improbable that, in simple fractures this plan may have some advantages over the splints and bandages now in use. Baron Larrey's apparatus forms a complete shell or mould that adapts itself to every part of the limb's surface, and thus forms a more permanent and imperturbable case for the member, than any apparatus which can be constructed of splints. There is this advantage, also, that the member is never disturbed by subsequent examinations or adjustments—a frequent source of displacement of the bones. But how far this apparatus will apply to compound fractures, especially where there is much laceration of the soft parts, or shattering of the bones, we will not venture to say. We should suppose that it never can become generally applicable in such cases. We understand, however, that some of the Parisian surgeons are adopting the plan of the Baron.—*Vide Journal de Progres, vol.* iv.—*Ibid.*

11. *Physiological and Pathological results of extirpation of the Kidneys.*—[Professor Mayer, of Bonn.]—Passing over the crude speculations of the ancients, respecting the functions of the kidneys, and the role which this function occupies in the animal economy—passing over, also, the instances in which these organs were found wanting in fœtuses and in monsters, we shall come at once to modern times, when experiments have been made with care, and their effects accurately noted.

When Richerand extirpated one kidney of an animal, no inconvenience appeared to ensue; but, when both kidneys were removed, a morbid condition obtained, and death took place in a very few days. In all Richerand's experiments, the gall-bladder was found gorged after death. The principal phenomena which succeeded the ablation of both kidneys, were—Vomiting, tremors, smallness of pulse, urinous odour in the liquids vomited, borborigmi, intermissions of the pulse, coldness of the body—death in three days. On dissec-

tion, some effusion was found in the abdomen, but no inflammation; venous system gorged with blood—no alteration in the chest—slight effusion into the cerebral ventricles. In some cases, the animal died in a quarter of an hour after the extirpation, and nearly the same symptoms and *post-mortem* appearances presented themselves.

Prevost and Dumas made similar experiments, and they discovered the presence of urea in the blood, after renal ablation. M. Mayer made a number of experiments, of which he has detailed ten, in a late number of a French journal. We shall only give the results, and not the details.

1. The extirpation of both kidneys causes inevitable death of the animal, at various intervals.

2. The principal phenomena observed were tremors; crying apparently from internal pains; and, finally, convulsions and death.

3. There were no well-marked symptoms of abdominal inflammation.

4. The operation is followed by the secretion, in various organs of the body, of a fluid, having all the physical characters of urine.—This secretion takes place, particularly in the abdomen, chest, pericardium, ventricles of the brain, the eye. stomach, and intestinal canal. It even takes place in the cellular tissue of the liver, lungs, muscles, testicles, &c.

This urinous serum was submitted to chemical analysis, and our author's experience coincided with that of Prevost and Dumas, who also detected urea in the blood of animals, after ablation of the kidneys, corresponding with the fact, that men, whose kidneys have been affected with organic disease, have vomited up matters clearly of a urinous character. We cannot, then, says our authors, deny, that a urinous liquid may be formed, under the above circumstances, in various other parts, besides the kidneys—but particularly in secreting structures.

Dr. Mayer thinks it probable that the cause of death, after these experiments, is owing to the irritation of the brain, from the urinous fluid thrown out there.—*Journal Complementaire.—Ibid.*

12. *Section of the Pneumo-Gastric Nerves.* [M. Dupuy. Veterinary School of Alfort.] It is now ascertained, beyond all doubt, that section of the par vagum, on both sides, destroys an animal, say the horse, in a few hours, by paralyzing the muscles about the larynx, and thus causing asphyxia. When death is thus produced, we cannot properly ascertain the real effects of the interruption of the nervous influence on the stomach, lungs, and other organs. M. Dupuy, therefore, in his experiments, opens the trachea of the horse, by which the animal is made to live from fifty to sixty hours. The gentleman in question, has laid some experiments lately before the Medical Society of Paris, in which the effects of the pneumo-gastric section are shown. Thus, the nerves were divided in both sides of a horse's neck, and portions cut away. Tracheotomy was then imme-

diately performed. The animal was carefully examined at certain periods, and also bled before and after the operation, in order to ascertain the effects of the section on the blood, as well as on various functions. Two hours after the section, there was no alteration in the functions of respiration, circulation, &c. The animal continued to eat as before. In four hours, the breathing was accelerated—the blood from the carotid was now darker in colour than before—the animal ate and drank, but deglutition seemed performed by a convulsive action, and liquids returned by the wound in the trachea. At the end of 16 hours, the breathing was slow and deep—much mucous flowed from the wound in the trachea, and the food returned by the same aperture—the action of the heart is much weakened—arterial blood is now nearly as dark as venous. The fourth examination, at the end of 28 hours, showed no material alteration. At 40 hours from the operation, the animal had great difficulty in swallowing—the blood from an artery was quite black—the œsophagus was felt to be crammed with food—and the horse was comatose. At 52 hours, the breathing was stertorous, and he soon died.

*Dissection.* There was nothing wrong in the brain. All the parts forming the aperture in the larynx were swelled and red, so that the passage was almost entirely closed. The mucous membrane of the larynx and trachea was red, and otherwise discoloured, but these were considered cadaveric phenomena. The lungs were inflamed and hepatised—the bronchia were filled with mucosities. The substance of the heart was much softened, and its cavities filled with black blood. The œsophagus was filled with alimentary matters, as were the pharynx and nasal cavities. The stomach was filled and distended with food almost dry, and adherent to the mucous membrane of the organ, which was of a red colour. There was no chyme in any of the intestines. The liver was enlarged, and there were several large black spots on the spleen.

From the above, and other experiments of a similar kind, it is evident that section of the pneumo-gastric nerves stops the sanguifictive (arterializing) process in the lungs—paralyzes the œsophagus—and puts an end to the secretion of gastric juice, and, consequently, digestion, in the stomach.

The experimenter, found, in this, and several other cases, that a peculiar effect is produced on the spleen by these operations—namely that its blood is changed, and capable of *producing* a disease in other animals, when introduced by a puncture, which affects *their* spleens and causes death. The same was found to be the case with the spleens of animals living in marshy countries, where intermittents prevail.—*Ibid.*

13. *On the Effects of Cupping Glasses on the Developement of Vaccine Pustules.* [*Journ. Gen. de Med. Mars*, 1828.]—The members of the Academie Royale de Medecine have been, for some time, endeavouring to prove the effects of exhausted glasses on virus and

poison inserted into the skin, but they do not appear to have yet arrived at any satisfactory conclusion. Did Dr. Barry's theory of absorption lead to so useful a point in practice as to enable us to arrest the progress of poison inserted into the skin, it would be worthy of some attention, however contrary to the laws of physic it might appear. Dr. Barry, conceiving that the absorbent fluids are driven up towards the heart by the weight of the atmosphere on the surface of the body, was naturally led to suppose that, by depriving any part of that surface of atmospheric pressure, no absorption could go on in that part whilst so deprived. Facts, so far as they have yet been collected, tend to support this opinion, although they prove no more that the fluid in the absorbent vessels is propelled by the weight of the superincumbent atmosphere, than the flow of blood out of a punctured vein proves that the atmosphere *attracts* the fluid, against its own gravity, out of the punctured vessel. The committee appointed by the Academie to examine Dr. Barry's experiments, found that no absorption went on under a vacuum; that, in fact, if poison be inserted into the skin, and a cupping glass, with the air exhausted from it, be applied over the part, the absorption of that poison into the system is prevented. M. Itard, wishing to satisfy himself of this fact, repeated the experiment, not by inserting poison, as Dr. Barry did, but by inoculating the part with the vaccine virus. He vaccinated a child on the shoulders by several punctures, over some of which he applied glasses, whilst the rest were left uncovered. The punctures which were covered by the glasses formed no pustules, whereas all those which had not been so covered, gave rise to vaccine pustules, possessing the usual characters. M. Bousquet was not satisfied with the result of M. Itard's experiment, so that he determined to repeat it on a large scale, at the bureau of public vaccination of the Academie. M. Bousquet obtained a very different result from that which M. Itard had obtained. In the experiments of the former, the glasses appeared to have scarcely any sensible effect in preventing the puncture from forming a pustule. It appears to be the general opinion among the members of the Academie, that a vacuum produced over the puncture may prevent the action of poison on the system, which generally takes place very suddenly, and in a degree proportioned to the dose; but that it is different with regard to a *virus*, which has the property of reproduction, and whose action is slow.

This subject appears to us easily explained. The application of an exhausted glass to a part will suspend the function of absorption in that part while it remains on. It acts in two ways in doing this; first, by the pressure of its edge on the absorbing vessels running from the part, thereby obstructing the motion of their contents; second, by *expanding these vessels beyond their natural calibre*, thereby suspending their function for the time. The absorbents are naturally intended to sustain the weight of the atmosphere, and when this weight is removed, they necessarily expand, and assume a

calibre which is not natural to them. The arteries and veins do the same. It cannot be expected that the absorbents, while in this state, can bring their sides together in order to press forward their contents. Let it be tried whether a portion of the intestinal canal will be able to contract so in a vacuum. As the vacuum of a cupping glass suspends the tonicity or contractility of the blood-vessels where it is applied, nothing can be more probable than that it suspends that of the absorbent vessels, whose coats are much more delicate than those of the arteries and veins. The fact appears to be, that the pressure of the atmosphere is natural to all the vessels, as it is to all other terrestrial objects, and that it is one of the causes which determine their physical form; it is also one of the causes which enables them to perform their functions, but it does not follow from this that they act like syphons, more than it does that the intestinal tube acts so.

Now it is not only possible, but also probable, that all the poison, or even virus, may be extracted, in some instances, if an exhausted glass is applied *immediately* after its introduction—that is, if the glass is applied before the poison or virus has entered the extremities of the absorbents. It may, by this means, be washed out by the blood. But should it once enter the extremities of the absorbents, nothing but a retrograde action of these vessels could discharge it again; for, as the edge of the glass extends all round to some distance beyond the wound, and as there is no pressure between the glass and the wound to force the poison back, it must necessarily remain at rest there, unless it can run back under to the law of gravity. The only chance of abstracting the poison when it has once entered the extremities of the absorbents, would be, by using a very small glass, which would barely extend beyond the edges of the wound. It is generally supposed, that, because an exhausted cupping glass extracts blood from a puncture, it must also extract the contents of the absorbents, or any thing else which may be in the wound. But this is by no means the case. The blood is constantly forced by the action of the heart towards that part, as well as towards others; it therefore flows out at the puncture. But as there is nothing to force the contents of the absorbents in a retrograde direction, that portion of the fluid situated between the edge of the glass and the wound will remain at rest, but the fluid situated between the glass and the heart may, and probably does, flow on in its natural course. It is true that the absorbents running into the wound from the distal side of the glass may pour out their contents, but it is not probable that any of the poison enters the divided extremities of these.

Now it would be advantageous to apply immediately an exhausted glass over the bite of a rabid animal, in order to suspend the absorption of the virus until instruments could be procured, and the consent of the patient and his friends obtained, to have the part excised. The absorption of any other virus or poison might be suspended in the same way for a period, to allow time to decide upon

the best plan of treatment to be pursued. But should excision be considered necessary, all the parts which have been covered by glass should be removed before the patient can be considered safe.—*Lon. Med. and Surg. Journal, No.* 1.

## II. Analytical.

14. *Coffee.* In the *third volume* of the *Dict. de Scien. Med.* there is an interesting article on Coffee, by a distinguished French physician, Dr. Nysten. The Arabs were the first who prepared a drink from the seeds of this plant. Its English and French names are derived from the Turkish name *Caouhe.* It is curious to trace the migration of this celebrated plant from the old to the new world. Near the end of the 16th century it was carried by the Dutch from Moka to Batavia, and soon afterwards from the latter place to Amsterdam; whence in 1713 M. Resson introduced it into the green houses of the royal garden, at Paris. From thence it was transported to the West Indies, by M. Declieux, who during his voyage deprived himself of a portion of his own drinking water, to refresh and sustain the young plant. It was first cultivated in the islands of Martinico, St. Domingo and Gaudeloupe.

Dr. Nysten treats of the qualities and effects of Coffee under two heads, *burnt* and *unburnt.* Its effects in the former state being well known, we shall pass over what he says concerning them, to present our readers with a translation of what he has collected relative to the medicinal powers of

*Coffee, unburnt.* "Coffee not roasted or torrefied imparts to water a greenish yellow colour; from whence is derived the name *lemon* coffee, which has been given to this drink, recommended by Andry (*Traite des alimens du careme*) and by Rostan and Ryhiner (*Acta Helvetica* tom. V. p. 384.) But it is, principally, at a later period, that the attention of physicians has been called, by professor Grindel, to unburnt Coffee; which he regards (*ouvr. periodiques cites*) as a good substitute for the Peruvian Bark. It was at the clinical establishment of the imperial University at Dorpat, in Russia, that this author made his experiments; and it was especially in intermittent fevers, that this medicine was administered to advantage. It was, how-

ever, given with success as a tonic in many other maladies. M. Grindel has given it in powder, in decoction, and in extract. To prepare the powder, the Coffee covered with water is to be exposed to a moderate fire, until it becomes moist; it is then to be placed in an oven, so temperately heated as not to burn it, and left to dry, when it may be easily pulverized. To make a strong decoction, the author directs us to boil an ounce of Coffee in 18 ounces of water, until it is reduced to six: he advises that we should prepare the extract in earthen, instead of iron vessels.

"Of more than 80 cases of intermittent fever he scarcely found one which resisted the action of Coffee, prepared in one of these modes. In powder, the strongest dose which he gave, was a scruple every two or three hours. It rarely happened that the most obstinate intermittents did not yield to two ounces of this powder. Sixteen ounces of the decoction were found to answer the same purpose. M. Grindel frequently gave the decoction to second the action of the powder. The dose of the extract is variable and similar to that of the extract of cinchona. When we administer Coffee as a tonic, the extract has appeared to M. Grindel to be the best preparation. Among many interesting cases in which this medicine was administered successfully as a tonic, we find that of a man, upwards of thirty years of age, who having been cured of a dropsy of the chest, remained in a state of emaciation accompanied with diarrhœa, which resisted the action of the Bark. After having laid aside for some time every kind of medicine, and finding that the disease still continued, recourse was had to the extract of Coffee, combined with a little opium, and dissolved in water; but the mixture occasioned pain in the bowels, and they afterwards limited themselves to the Coffee alone, in the dose of two spoonfuls a day, dissolved in about six ounces of water. This medicine gradually moderated the disease and improved the condition of the patient, so that when he had taken about twelve ounces at the end of two months, he was quite cured.

"A woman had lost, in a few years, nine children, who had died between the ages of two and three years, of atrophy attend-

ed, in the close, with colliquative diarrhœa. The tenth, aged eighteen months, was on the point of falling under the same disease. The Bark passed unaltered from the bowels, and other medicines were given without effect, when they resorted to the decoction of Coffee, with a little tragacanth and extract of tormentil. Afterwards, however, they limited themselves to the decoction of Coffee, which was continued for nine weeks, when the child was perfectly cured.

"The facts which we have cited from Dr. Grindel, and which might be collected from the *Bibliotheque Medicale* are sufficient to establish the efficacy of unburnt Coffee, as an excellent tonic and febrifuge."

15. *Respiration of Cold air in Pulmonary diseases.*—In the American Journal of the Medical Sciences, Number 3, and the New-York Medical and Physical Journal, for June 1828, Dr. Charles Drake, of the city of New-York, has published two interesting papers on this subject. He caused patients labouring under various forms and grades of bronchial inflammation, to inhale, for a limited time, an atmosphere, artificially cooled to 50° 40° and even 28° of Fahrenheit; at the same time keeping the surface of the body in a state of excitement and transpiration by means of extra clothing or bed covering. The sedative effect on the pulse was generally decided; and in several interesting cases a speedy cure was effected. Dr. D. does not consider it a remedy for genuine phthisis. He has resorted to three different modes of application. First, causing his patients to breathe through a tube, immersed in pounded ice; or, when he wished to employ air cooled below the freezing point, a mixture of ice and common salt. Secondly, requiring them to respire through a tube connected with the external air, in winter. Thirdly, exposing them to such an atmosphere, so clad as to defend the surface of the body, from its refrigorating influence. Dr. D. inquires, with much plausibility, whether a part of the benefit which the phthisical often derive from travelling, may not arise from their breathing a cooler and fresher air. We recommend his plan to the consideration of the profession.

16. *Blisters to prevent abortion.*—In the August number (1828) of the *American Journal of the Medical and Physical Sciences*, Dr. Samuel Jackson, of Northumberland, Pa. well known to the profession in the United States, as the author of several valuable papers, has inserted a communication on the efficacy of blisters in preventing ABORTION. He does not, as yet, venture to insist upon them, as a remedy for the miscarriages which occur to the same patients, many times in succession,—and which constitute one of the *opprobria medicorum*,—but as a promising acquisition to the means already in use, for preventing abortion from occasional or accidental causes; and that cases of this kind, too often call for other aid than that which is generally employed, every physician of extensive practice must admit. That Dr. J. may speak to our readers for himself, we shall extract the following interesting case:

"*Case* 2.—About two months since, we were sent for to visit the wife of P. L. in Sunbury, but not being able to attend for some time, we found, on arriving at the house, that our friend, Dr. PRICE of that town had been called. The patient, in the sixth month of her pregnancy, had made a misstep the day before, from which she suffered some pain in her back during the whole night; in the morning she walked out, but found herself worse for it, and, upon returning home, she was seized with bearing pains, followed by such a discharge of water as led her to suppose that the membranes were ruptured: the pain increased, with frequent gushes of water, and by the time Dr. Price had arrived, it was excessively violent, coming on at regular intervals of about five minutes and reaching down the thighs; she had also a severe strangury which obliged her to rise frequently and pass a few drops of urine with great pain. Dr. P. had directed an enema of laudanum, half an ounce, which she had retained without any alleviation, though at least an hour and a half had now elapsed.

The *os uteri* was, as we believed, a very little patulous, there had been some sanguinous show, and after the most careful inquisition, we presumed that the membranes had given way, and the water passed off. The uterus was in its proper site, the pains did not seem to affect it very considerably, and therefore even if abortion were to be considered as finally inevitable, these were not the proper pains to produce it, and hence they were to be subdued if possible. Her pulse was too feeble to admit of bleeding, and moreover she was of a peculiar constitution, and seldom profited by the loss of blood. Solid opium was now given in doses of five grains, with the hope that in conjunction with the enema already taken, it would subdue these pains and prepare the system for the supervention of genuine

labour. But these potent doses produced very partial, and only temporary relief, and did not fail to bring on severe vomiting, which always renewed the pressing pains. Two indications therefore arose—to subdue the pains, and to compose the stomach. The black drop and paregoric elixir she abhorred, and hence we continued to give solid opium by the stomach, and laudanum by injection; but no sooner did the pain abate under these anodynes, than a dreadful vomiting ensued, which constantly renewed it. We endeavoured to keep the system under the steady influence of opiates, being careful to administer some as soon as the effects of the preceding dose began to subside into languor and sickness; we tried to compose the stomach with ether, elixir vitriol, lupuline, ginger tea, an article we have found of great service in the nausea left by opium. But all these applications were vain; either vomiting or pain, and sometimes both, were continually present, and the state of the poor sufferer was truly alarming. We must confess that in such a case the acetate of morphia, or the denarcotised laudanum ought to have been used, but we had rather unjustifiably neglected to procure these articles, having always found an acetic preparation on the principles of the *black drop*, to answer as a succedaneum to common laudanum.

Here let us observe that we should have applied a blister to the lumbar region at first, had it not been that we looked upon abortion as inevitable, and considered that genuine labour would soon supervene. But now, after a struggle of two days and nights, without any advantage being gained, we proposed to our colleague the application of a blister, and he readily consented, though he acknowledged the practice to be entirely new to him. Just in proportion as the plaster drew, the pain receded, and was felt no more after the blister was fully drawn. So complete was the cure that a tremendous fire the following night, which suddenly consumed a large wooden barn within twenty perches of her house, and alarmed her excessively, did not renew the pains. Even the strangury was entirely removed by the blister, and did not return. She has continued well ever since, and she now feels the fœtus as vigorous as before. She was of opinion that at least half a gallon of water was gradually discharged in the course of the first two days. That the liquor amnii may pass off, and the fœtus survive, is probably incontrovertible, but it certainly occurs so seldom as to be justly considered a very rare exception to the general course of things. That it occurred in this case we cannot by any means aver; the lady may have been deceived in the quantity passed, and the water may have come from one of those collections which authors describe as sometimes existing between the membranes."

In a subsequent part of his paper Dr. J. has the following general remarks on the safety of blistering in the pregnant state, to which we are disposed to extend an entire concurrence.

"It has been said that blisters are to be avoided as far as possible in all cases of pregnancy, because they are particularly apt to produce strangury in this state of the body, an affection that might be attended with dangerous consequences. But we cannot forbear asserting, that we have never hesitated to apply them on account of pregnancy, and that we do not recollect having ever seen a strangury from them under such circumstances. This exemption may be owing to the care we have very generally had of giving parsley tea or some diuretic during the whole time of their drawing. Last summer a lady in the ninth month of her pregnancy, suffered severely with œdematous legs, and having heard of blisters in such cases, she proposed the remedy herself; we tried to dissuade her from using them, but she did it clandestinely, and had great cause to rejoice in her temerity."

We shall conclude this notice with a reminiscence which cannot be regarded as foreign to it.

The nausea and vomiting attendant on pregnancy, are well known to be sometimes most obstinate and distressing. They may even eventuate in abortion. Some years since, a patient fell under our observation, who throughout the whole period of two pregnancies, had experienced distressing and almost uninterrupted nausea, with great consequent reduction of strength and flesh. She was then in her third term, and affected with the same disturbance of the stomach: In this afflicting situation, a pair of blisters were applied to the ankles, and gave immediate and permanent relief.

17. *Poisoned wounds. Cupping Glasses. Pressure. Ligatures.* In the second number of our Journal, we gave a short analysis of the experiments of Dr. Pennock on the efficacy of pressure in poisoned wounds. In the periodical work just quoted, Dr. Aristide Rodrique has published a series of analogous experiments, performed about the same time by himself. His experiments were made on cats and rabbits, with strichnia, and hydrocyanic acid of the strongest kind. The results were found to coincide with those of Dr. Pennock, and give great support to the opinion, that it is not a *vacuum over the wound*, as Dr. Barry supposed, but *pressure around it*, that preserves the constitution from injury;—and that this pressure, (which in every case may be promptly and successfully made, with-

out the aid of a cupping glass or a physician) is likely to be successful is extremely probable. The following are his conclusions:

"1st. A vacuum caused over a part under which a poison has been deposited, will prevent such a poison from producing its usual effects so long as this vacuum exists.

"2d. All constitutional symptoms immediately disappear on the establishment of a vacuum over the poisoned surface, and by removing the poison by an incision, the life of the animal may be saved, provided too great a quantity be not previously absorbed.

"3d. The glass does not act by extracting the poison, as may be seen from the experiments with strychnine.

"4th. The ligature, and the glass not exhausted, are equally as effectual, in cases of poisoned wounds, as the exhausted glass."

If cupping glasses and pressure do not extract the poison from wounds (and the latter of course does not) when they preserve the constitution from harm, what becomes of the deleterious substance; and how does it happen, that after an hour, or some other brief period, as in the experiments of Dr. R. the apparatus may be removed and the animal remain unaffected? Can strichnia be decomposed or assimilated, in such a situation, within that period? It would, we think, be difficult to sustain the affirmative of this proposition; and if this be correct, how does it happen, that after the pressure is withdrawn, the general system does not become afflicted? On this subject more light is wanted.

Under the analectic head of this department of our Journal, will be found an article from the 1st No. of the *London Medical and Surgical Journal*, on the influence of cupping glasses on the developement of the vaccine vesicle, to which we beg leave to recall the attention of the reader in connexion with what he has just read.

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In the course of his inquiries, Dr. Rodrigue, three times applied hydrocyanic acid to the trunks of nerves, laid bare, and found that it produced no effect, except in one instance and then in a slight degree, and could be explained by the adhesion to the nerve of a small quantity of cellular mem-

brane. From these experiments the Dr. "judges that prussic acid has no direct specific action on the nerves," and that it "does not act upon the system through the medium of the nerves." Now this may *possibly* be the case, but the experiments cited are, it appears to us, far from showing it; for, first, the poison was applied to the *neurilema* and not the *nervous matter*, of which alone, sound physiology predicates the faculty of transmitting impressions; and, secondly, it was not applied to the sensible or susceptible extremities, as found in the wounded skin or muscles, or in the healthy surface of one of the membranes, as that of the mouth or eye. That *mechanical* agents, directed upon the *trunks* of nerves, may greatly disturb the economy of the whole system we all know; but, for medicines or poisons, which act on a different principle, to affect the system, through the medium of the nerves, it would seem to be requisite to bring them in contact with their gensient extremities either external or internal. On this subject, we mean the mode in which prussic acid destroys life, there have been facts extant, ever since the day when Gay-Lussac, and Thenard, first presented to the world that, which for the good of mankind they might, perhaps, as well have let alone; and Dr. R. has added to the number, if not the variety of our *data*. Thus he found that a single drop of the acid, introduced into a wound in the thigh of a rabbit, produced violent convulsions in ten seconds, and perfect death in sixty; and that a similar application destroyed another in ten seconds; while a full grown cat, (not easily killed by common means,) expired in a minute, from the application to its *tongue* of a single drop of the poison! This is like the fall of the electrometer, when the charged battery is touched with a conductor:—we refer, of course, merely to the celerity of the operation in the two cases. For ourselves we require no other evidence than these and other facts of the same kind already known, to convince us, that prussic acid *does* exert on the nervous system, when applied to susceptible and unprotected surfaces, a most specific and deadly influence; and that through the medium of this system, it extinguishes life with

a promptness and certainty, that ought to recommen it to the law givers of every nation, which seeks, in its capital punishments, the death only, and not the the torment of its criminals? This however by the way. As to the *quomodo* when all the functions cease in sixty seconds from the application of a single drop of prussic acid, we confess our utter ignorance: but that the entire nervous function is overthrown by the local impression, we cannot entertain a doubt.

18. *Prize Dissertation on the effects of Ardent Spirits.* The Massachusetts' Medical Society have offered a premium of FIFTY DOLLARS for the best Dissertation on the means of "*preventing and curing the habit of Intemperance.*" It is expected that those who become candidates will "*point out the circumstances in which the abandonment of the habitual use of stimulating drinks is dangerous; and, also investigate the effect of the use of wine and ardent spirits on the different organs and textures of the human body.*" The Dissertation must be sent in by the 15th of April 1829. The committee appointed to examine them, and award the premium, are Drs. John C. Warren, Zabdiel B. Adams, and John Ware.

The object of the Massachusetts' Society is of great interest, and we sincerely hope, that the effort may effectuate something useful to the profession and society at large. But where is the man who is qualified to extend our knowledge of the subject proposed? We do not doubt that candidates enough will press forward; but we hope the society will not content itself with sending forth a digest of common places.

19. *Dr. Mussey on Intemperance.* It is encouraging to observe so many societies directing their attention to the means of correcting the abuse of spirituous liquors. That they are the causes—immediate or remote—of a multitude of diseases, both of body and mind, no physician of observation can doubt. They clearly fall, therefore, within the legitimate scope of the profession; and should attract more of its attention than they have heretofore done.

On the 5th of June 1827, Dr. R. D. Mussey, professor of Anatomy and Surgery in Dartmouth College, and at that

time President of the New-Hampshire Medical Society, delivered before the latter institution an "Address on Ardent Spirit," which at the request of the Society, was published within the present year.

As this address—respectable of its kind—is in a great measure declamatory, we shall not undertake its analysis, but the following extract which contains the professor's views on the *modus operandi* of ardent spirits, and involves some disputed points in physiology, will not be read without interest.

"What is the secret of this witchery which strong drink exerts over the whole man? I will try to tell you. After being received into the stomach it is sucked up by absorbent vessels, is carried into the blood, and circulates through the alimentary organs, through the lungs, muscles, and brain, and doubtless through every organ of the body. Not a blood vessel however minute, not a thread of nerve in the whole animal machine escapes its influence. What is the nature of this influence? It disturbs the functions of life; it increases for a time, the action of living organs, but lessens the power of that action; hence the deep depression and collapse which follow preternatural excitement. By habitual use, it renders the living fibre less and less susceptible to the healthy operation of unstimulating food and drink, its exciting influences soon become incorporated with all the living actions of the body, and the diurnal sensations of hunger, thirst, and exhaustion, are strongly associated with the recollection of its exhilarating effects, and thus bring along with them, the resistless desire for its repetition.

Is evidence required of its being absorbed, and pervading the different organs of the body? Approach within a few feet of the rum or brandy drinker, and the odour of his breath will quickly demonstrate, that the lungs, loaded with the foul liquor, are discharging it with all the energy in their power.

When taken by the nursing mother, it enters into the delicate food prepared by nature for the nourishment and growth of helpless infancy, and in this way, as may most rationally be supposed, produces a relish for an article naturally disgusting, and lays thus early, in some instances, a foundation for intemperance in after life. What physician has not known a nursing mother give a fretful child a good night's sleep, by taking, herself, a dose of brandy at bed time?

Other organs than those destined for the formation of milk, manifest the presence of this article when it is combined with peculiar odours; those organs especially, which are set as waste gates to the system, soon show how foreign it is, and ill adapted to the real wants of the animal economy, by separating it from the blood and taking it out of the general circulation as fast as possible.

The brain, that most delicate and wonderful organ, which forms the mysterious link between the other forms of matter and mind, the healthy functions of which are essential to vigorous intellectual operation. is capable of imbibing alkohol, and having all its actions suddenly arrested. In point, is the case of the man who was picked up dead in London, soon after having drank a quart of gin upon a wager. He was carried into the Westminster hospital and there dissected. "In the ventricles of the brain was found a considerable quantity of limpid fluid, distinctly impregnated with gin, both to the sense of smell and taste, and even to the test of inflammability. The liquid appeared, to the senses of the examining students, as strong as one third gin to two thirds water."

We know that alkohol, even when diluted, by long contact after death, hardens the brain, as well as the other soft textures of the body which contain albumen; and although the vital principle may enable the brain to resist in a great measure, and for a long time, this effect of alkohol, when brought into it from the stomach by the general circulation, the fact, as alleged by many, and as I am strongly induced to believe from the limited means I have had of observing, viz. that the brains of drunkards are literally harder at death, than those of the temperate, may be considered in strict accordance with the effects of intemperance upon the intellectual functions. If this organ be in any degree hardened by the circulation of diluted alkohol through its minute and most delicately organized parts, it might well be supposed to be less susceptible of those exquisitely balanced actions, which we can hardly help believing do exist in the impressions made by external objects, and in the variety of combinations of them, produced by the more abstract, and retired operations of the mind. That a large proportion of tiplers early discover an unnatural obtuseness of intellect, and that frequently a mind originally quick and vigorous, becomes sluggish and imbecile, need not be told to an assembly of physicians who have had the common opportunities of observing the effects of intemperance.

The stomach and liver of drunkards are generally found to be disordered; the stomach frequently contracted, and the liver much harder than natural, exhibiting an unnatural colour both upon its surface, and throughout its interior texture. This, perhaps, is what might be expected. The stomach receives the liquor, in the most concentrated and active form, in which it is taken into the body.—From the stomach and the alimentary canal below, most, if not all of it, is probably carried through the liver in a state less dilute than when distributed among the remaining organs of the body. The texture of the liver too, which consists merely of vessels and nerves with enough cellular bembrane to hold them together, may perhaps serve to show why it is more obviously affected than the alimentary canal, inasmuch as this canal has a distinct, and in some places, a thick muscular coat, independently of its vessels."

We hope the Professor—in whom we are happy to recognize a former class mate as well as a present collaborator—will continue his able exertions in the cause of *Temperance.*

20. *Dr. Cartwright on Iodine.*—This ingenious and indefatigable physician has inserted in the 44th number of the American Medical Recorder, the results of his experience, and that of some of his friends, on the internal and external use of *Iodine* and the *Hydriodate of Potash.* He has not, he informs us, extended his "inquiry to the effects of Iodine in those diseases in which others have used it, but confined it, with one exception, to certain diseases in which, as far as he is informed, its remediate properties are entirely unknown." This no doubt is a candid statement; but justice requires, that we should say, that as far as we can discover, there is but one or two of the maladies in which Dr. C. has employed Iodine, for which it had not been directed by other physicians, both in America and Europe, before the publication of Dr. C's experience; and even before most of his trials were made. For the evidence of this we need make no other reference, than to the summary of authorities contained in the last edition of Majendie's Formulary, and to our review of it, in the May number of this Journal.

The first enumerated disease in which he found Iodine and its preparations useful is Chronic Opthalmy, to the pathology and divisions of which, he has devoted several pages, that our limits do not permit us to analyse. He uses the medicine both internally and externally, and regards it as a specific in certain forms of the disease. As an external application, he employs an ointment according to the following formula:—℞. Pot. hydriod: ʒss adip. prep: ʒj. Mix and rub together in a glass mortar. This ointment he applies to the lids, brows and surrounding parts twice a day. We have not ourselves used the ointment of Iodine in opthalmy, but on the authority before us, do not hesitate to recommend it to our brethren. The results of our experience with Iodine internally, in various opthalmias is stated in this Journal (*loco citato.*)

Doctor Cartwright has also employed Iodine in a case of Iritis, and so far as we recollect, is the only person who has yet directed it in that formidable malady. We shall extract his report of the case.

*Iritis.*—"A negro girl about ten years of age, belonging to Mr. Bradley of this city, was attacked with inflammation of the iris, in May, 1827. The disease came on without any evident cause. Her *general* health *was* apparently good, and *had been* so, with the exception that her abdomen was protuberant and her pulse somewhat too frequent, the sclerotic conjunctiva, and lining membrane of the eyelids were somewhat turgid with blood, but the turgescence did not extend to the conjunctiva, within the circumference of the cornea. The iris was of a reddish colour, and dentiform processes verged towards the centre of the pupil. The pupil was irregular and dusky. The pain was at no time acute. I gave an emetic, and put the patient on a course of mercurial cathartics, conjoined with antimonial medicines in small doses. The eye got worse. The blue pill, calomel, &c. were used to produce ptyalism, and the temples were blistered. Under this treatment a reddish cloudiness suffused the whole aqueous humour, which gradually turned grayish, the pupil became obscured, and vision was lost. I now recommended the ointment of the hydriodate of potash to remove the turgescence of the conjunctiva, not supposing it would have any effect on the deep-seated inflammation on the iris, and the delicate tissue investing the humours of the eye. She had not been using the remedy more than a week or two, before the turgescence of the conjunctiva disappeared, and the cloudiness of the aqueous humour began to settle down like an hypopion or onyx. The patient at length began to discern bright objects. About this time, before there was much probability of the affected eye becoming restored, the iris of the sound eye became inflamed in the same manner as the other had been. I bled the patient, introduced a seton in the temple, and directed the iodine internally, and the hydriodate of potash externally, and also ten grains of calomel every or every other night, for a few nights. I had now no more trouble with the patient. The inflammation of the iris in the eye last affected was arrested in a few days, and by continuing the iodine and the ointment of hydryiodate of potash a few weeks, vision became perfectly restored in the other eye also.

Dr. John Bell of this city, formerly surgeon of the New-York Eye Infirmary, a gentleman whose judgment is entitled to every confidence, saw the above patient after the last eye became affected, and unhesitatingly pronounced the disease *iritis*.

Scirhous Enlargement of the Spleen.—In the protracted enlargements of the spleen, so common in the paludal districts of the South, and, problematically, denominated scir-

hous, by our author, has, in imitation of one of his Louisiana friends, Dr. Thompson, directed Iodine with striking success. The same practice has been pursued, simultaneously, by Dr. Milligan and others, in Europe, where our medicine has likewise been used, successfully, in certain enlargements of the liver.

The remaining diseases embraced in his 'Inquiry' are Circocele, Amenorrhœa and Dysmenorrhœa, Inquinal Tumours or Buboes, and an obstinate Diarrhœa 'peculiar to the Southern states,' on the treatment of each of which, with Iodine, by himself and his friends, Dr. McPheters and Dr. Thompson, he gives a favorable report; but we have not space to afford for its analysis; and, as we know, that the Profession are at this time actively employed in their trials with this medicine, in an unusual variety of obstinate maladies, embracing several of those enumerated, we consider *such* a notice the less necessary.

### III. Original.

21. *Cincinnati Eye Infirmary.* At the request of the Surgeon of the Infirmary, the Visitors have appointed Professor Cobb, a consulting Surgeon of this public charity.

22. *Necrology.* Died, in Paris within the present year, the celebrated Dr. Gall. He was a native of Germany, but had resided, latterly, in France. Whatever may be the fate of Dr. Gall's system of *Phrenology*, his researches into the anatomy of the brain, in conjunction with Dr. Spurzhiem, will entitle him to a high rank among those who have adventurously devoted themselves to inquiries into the structure of that most complicated organ. Previously to his death, Dr. G. was extensively employed in the practice of medicine in the French metropolis.

Died in Cincinnati, on the 14th inst. of Hydrothorax, Dr. E. H. Pierson, aged 57 years. Dr. P. was a native of Jersey, and had resided for the last 10 years in this city, where he was engaged in an extensive practice up to the week of his death. At the time of his decease, he was a Trustee of the Medical College of Ohio, and President of the Board of Health.